ATTRIBUTION OF MENTAL ILLNESS-MENTAL HEALTH: THE EFFECTS
OF STATISTICAL AND IPSATIVE NORM
DEVIATION AND VALENCE

By

BOBBIE LEE IRVING

A DISSERTATION PRESENTED TO THE GRADUATE COUNCIL OF
THE UNIVERSITY OF FLORIDA
IN PARTIAL FULFILLMENT OF THE REQUIREMENTS FOR THE DEGREE
OF DOCTOR OF PHILOSOPHY

UNIVERSITY OF FLORIDA

1978

ACKNOWLEDGEMENTS

TABLE OF CONTENTS

LIST OF TABLES

LIST OF FIGURES

ATTRIBUTION OF MENTAL ILLNESS-MENTAL HEALTH: THE EFFECTS
OF STATISTICAL AND IPSATIVE NORM
DEVIATION AND VALENCE

By

Bobbie Lee Irving

March, 1978

Chairman: Dr. James C. Dixon
Major Department: Psychology

This study was conducted to determine the effects of statistical
and ipsative norm deviation (consensus and consistency, respectively)
and valence of behavior on relative dispositional-situational attribution
and the attribution of mental illness-mental health (AMI-AMH). The
design was a 3 x 2 x 3 x 2 mixed factorial with three levels of
statistical and ipsative norm deviation (zero, moderate, and high, and
short-term, long-term, and zero, respectively) and two levels of order
of item presentation and valence (negative and positive). Statistical
norm deviation was manipulated by selecting actions perceived by a
pretesting group to vary in frequency of occurrence to the required
degree. These were woven into "short stories" and followed by infor-
mation about the ipsative normativeness of the agent's behavior.
Dependent variable measures were Likert-type scales on which subjects
estimated the extent of both the dispositional and situational
causality of the agent's behavior, his state of mental health (ranging
from "superior mental health" through "normal personality" to "mental
illness"), and confidence in their attributions of mental illness-
mental health.

The findings for dispositional-situational attribution indicated that in general there was greater relative dispositional attribution for negative than positive behavior and for increasing levels of statistical and decreasing levels of ipsative norm deviation. However, contrary to prediction, there was no difference in relative dispositional attribution for valence when both positive and negative actions were statistically normative. Nor was there an increase in dispositional relative to situational attribution with increases in statistical norm deviation when the agent's behavior was positive. This was a result of the increase in _absolute_ dispositional attribution with increasing levels of statistical norm deviation being offset by a simultaneous increase in _absolute_ situational attribution. It was concluded that because of the problem of social desirability, consensus may not be an effective determinant of relative dispositional attribution in the case of positive actions.

Valence was the pivotal variable for AMI-AMH. There was no attribution of mental illness for positive actions and no attribution of superior mental health for negative actions. When the agent's behavior was negative, AMI was an increasing function of statistical norm deviation (zero < moderate < high) and a decreasing function of ipsative norm deviation (short-term < zero). However, high statistical norm deviation was both necessary and sufficient to elicit attributions of _absolute_ mental illness. Borderline AMI obtained when the agent's actions were only moderately deviant statistically but occurred with at least moderate consistency. For positive actions AMH increased with increases in statistical and decreases in ipsative norm deviation; but for attributions of superior mental health to be made, both high statistical and zero ipsative norm deviation were necessary. This was interpreted in light

of the dispositional-situational attribution results. It was concluded that consistency information is the more powerful determinant of dispositional attribution and consensus information, of attributions of mental illness.

The measure of attributional confidence revealed that greatest certainty about mental illness-mental health attributions occurred when an attribution of normal personality was made to the agent whose behavior was positive and statistically and ipsatively normative. Relatively great confidence was also expressed for attributions of superior mental health and mental illness when the agent's behavior (positive and negative, respectively) was highly deviant statistically and nondeviant ipsatively. Least attributional certainty occurred in those conditions in which the level of one or more variables suggested the possibility of an alternate attribution (mental illness vs. normal personality or normal personality vs. superior mental health). This was interpreted in terms of the concept of information ambiguity. Limitations of the study were discussed and possible directions for future research were suggested.

CHAPTER I

INTRODUCTION

Attribution Theory: The Attribution of Personal Dispositions

Attribution theory is concerned with the processes by which individuals form causal interpretations of the events surrounding them. More specifically, it deals with the conditions antecedent to the inference of causality, responsibility, intentions, and dispositions. Since the body of theories subsumed under the label of "attribution theory" potentially offers an approach to investigation of the conditions under which individuals attribute mental illness and health, the theories relevant to dispositional attribution will be reviewed. This review will be followed by a summary of past research in the area of "recognition of mental illness" and a comparison of the variables suggested by these findings to be of importance with the concepts found by attribution research to be of consequence for the attribution of personal dispositions in general. Hypotheses regarding the attribution of mental illness-mental health (AMI-AMH) will then be derived from the principles of attribution theory.

Attribution theory has its origins in Heider's paper on phenomenal causality (1944) and is elaborated in his The Psychology of Interpersonal Relations (1958). The basic assumption underlying the theory is that individuals are motivated to structure their environment in such a way as to gain predictability and control over it. According to Heider, individuals seek to understand their world by referring transient and

1

variable events to relatively invariant underlying conditions, dis-
positional properties. These properties "dispose" entities, events,
and individuals to manifest themselves in certain ways under certain
conditions.

When the perceiver observes the actions of an agent he has as his
task to decide the extent to which the actions are a result of the
totality of personal and impersonal-environmental forces. Personal
forces include two major components: a power factor (ability) and a
motivational factor (intention and exertion). Impersonal forces are
difficulty and luck or chance. Both personal and impersonal forces
have a dispositional component (ability and task difficulty,
respectively) and a more temporary element (intention and exertion
and chance, respectively).

The central factor in personal causality is intention, whether
the agent was trying to produce the effect. Impersonal causality
includes not only physical events but also cases in which the individual
in the process of trying to produce one effect also causes to occur an
unintended effect. Since the latter effect was not his goal, it is
considered to be a function of impersonal causality. Intentional
action possesses two characteristics that distinguish it from impersonal
causality: equifinality and local causality. Heider (1958) uses the
term "equifinality" to refer to the invariance of the end and the
variability of the means that characterize personal causality. The
action which the agent employs in attempting to obtain the goal is
varied in response to an alteration in environmental conditions. In
contrast, in cases of impersonal causality the effect is altered when
the environmental circumstances change (multifinality). The second

characteristic of intentional action is local causality. In personal
causality the agent is the initial and persistent cause of the action.
In comparison, in cases of impersonal causality the initial and final
causes are seldom identical; the final event is the result of an
infinite regression of prior events.

According to Heider (1958) the naive observer does not stop with
the inference of an intention since its relatively transient nature
does not greatly enhance future prediction and control but instead he
pushes for an understanding of the motive behind the action, the
conditions under which trying occurs. It is the motive, which Heider
considers to be dispositional, that gives meaning to the intention.
In distinguishing between intention and motive Heider says, "Both
(intention and motive) are directed toward a goal, but intention is
identifiable solely by the structure of personal causality which points
out what a person is trying to do or has succeeded in doing without regard
to the meaning it holds for the person" (Heider, 1958, p. 127). The
motive, in contrast, is what determines the intention, the reason the
person was trying to accomplish the goal. Heider further makes a distinc-
tion between induced motives (requests, commands, oughts, and ulterior
goals) that arise from factors more external to the agent and wishes or
wants which appear to stem from something about the individual. He
notes that when the agent does something that most individuals like
to do, the perceiver will infer the presence of a want; whereas, if
the action and its outcome are unpleasant, an induced motive will be
sought.

Although Heider's (1958) theory is stated in such a way as to make
the derivation of hypotheses difficult, his comprehensive analysis of

the human action paradigm has spawned the majority of current theories of causal attribution. Two such theories that are particularly relevant to dispositional attribution will now be considered.

Derived from the Theory of Interpersonal Relations, the Theory of Correspondent Inference (Jones & Davis, 1965) also makes intentionality the cornerstone of the inference process linking an action with an attribute. The focus of this theory is on the conditions under which an intention and then a personal disposition will be inferred from an action. An inference is said to be correspondent to the extent that similar language can be used to describe the effect of the action and the inferred intention and attribute. The theory begins at the point at which personal causality has been determined. That is, the theory makes the assumption that the agent had the knowledge and ability required to perform the action and that he had available to him an alternate action with different effects. The latter of course does not rule out induced motives, since the individual can refuse to comply with commands, requests, etc. The process of dispositional attribution consists of two stages: a decision about what the agent's intention is in performing the action and a decision about whether the intention reflects an underlying personal disposition.

The agent's intention is inferred through the processing of information about the noncommon effects of the action and its social desirability. The act observed may have a number of effects, some intended and others merely by-products. A few of these effects will be shared with the action alternative not taken. These common effects may be eliminated as the probable intention of the act. Thus, providing that there is at least one effect that differentiates the chosen from

the nonchosen action, the fewer these noncommon or unique effects, the greater the correspondence between the act and the intention.

The intention inferred from the action is also determined by the assumed desirability of the effects. As was the case in Heider's theory (1958), in the Jones and Davis (1965) model the naive observer makes the assumption that the agent desires the effects that most other people desire. Therefore, the greater the desirability of one of the noncommon effects, the greater the perceiver's confidence that that particular effect was the agent's intention. To summarize, attribution of intention is an inverse function of the number of noncommon effects and a direct function of the social desirability of the effect of the chosen action.

Although the first stage of the attribution process culminates in an inference of the actor's intention, this knowledge does not necessarily eventuate in an attribution of a personal disposition. It will be remembered that the purpose of the attribution process is the prediction and control of the agent's behavior by referring it to underlying dispositional properties. According to Jones and Davis (1965), the perceiver's predictive ability for a given individual is enhanced only when an enduring discrimination can be made between that person's behavior and the behavior of others in a similar situation. Thus the purpose of the second stage of the attribution process as conceived by these theorists is the ascription of a personal (unique) disposition to the agent. The inference from an action to a personal disposition is an inverse function of both the number of noncommon effects and the assumed desirability of the action. The term "desirability" is here used to refer to the assumed statistical normativeness of the act, its imagined prevalence in the relevant population. The greater the departure of the

agent's behavior from that of the average person, the greater the correspondence between act and attribute. Thus the actor's dominant, greedy or kind action (noncommon effect) must be greater than that of the generalized other in a similar situation in order for a personal disposition of dominance, greediness, or kindness to be attributed to him. In effect, the desirability criterion prohibits the establishment of an action-attribute linkage based on intentions arising in environmental demands (or in Heider's terms, induced motives).

In addition to the cognitive-information processing variables of desirability and noncommon effects, Jones and Davis (1965) have proposed that dispositional attribution is affected by motivational variables related to the observer's level of involvement in the agent's action. The more general concept, hedonic relevance, refers to the extent to which the agent's action either benefits or harms the perceiver. The concept of personalism refers to the observer's perception that he is the intended target of the agent's beneficial or harmful action. That is, given the action is relevant to the perceiver, its hedonic effect can be merely a by-product accompanying the intended effect or it can be the personalistic, intended outcome of the agent's action. Jones and Davis propose that because of the observer's tendency to assimilate all of the remaining effects of the action under the rubric relevant to the hedonic tone (thereby reducing the number of noncommon effects), correspondence increases with the presence of hedonic relevance and personalism. It has also been suggested (Kelley, 1967) that the proposed increase in correspondent inference with the perceiver's involvement in the action is the result of his more acute awareness of alternative courses of action available to the agent.

In summary, in the Jones and Davis Theory of Correspondent Inference (1965) personal dispositional attribution is said to be an inverse function of the information processing variables of number of noncommon effects and assumed desirability of effects, and a direct function of the motivational factors of hedonic relevance and personalism.

The theory of dispositional attribution which has perhaps received the greatest attention is that of Kelley. Although originally conceived as a theory of external attribution (Kelley, 1967), its level of abstraction permits reformulation to yield hypotheses concerning the conditions under which personal dispositions will be ascribed (McArthur, 1972).

The general approach employed by Kelley (1967) is J. S. Mill's method of differences, the effect being attributed to that which is present when the effect occurs and is absent when the effect does not occur. In this scheme there are three potential causal attributions, two of which are dispositional (personal vs. environmental) and one, situational. The specific attribution made is dependent upon the patterning of three types of information (consensus, distinctiveness, and consistency) concerning whether the action covaries with the person, the stimulus, or the circumstance. Whether a situational or stable dispositional attribution is made is contingent upon level of consistency of the action across time and modality. Low consistency is proposed to effect a situational and high consistency, a dispositional attribution. Given that the action is high in consistency, the type of disposition inferred is said to be dependent upon levels of consensus and distinctiveness information. The concept of consensus relates to whether the agent's behavior in the presence of the particular stimulus is

similar or dissimilar to that of other individuals. High consensus is postulated to result in an environmental (stimulus) and low consensus, a personal dispositional attribution. Distinctiveness information concerns whether the agent's behavior does or does not vary with different stimuli in the same class. The theory proposes that high distinctiveness will result in increased stimulus attribution and low distinctiveness in increased personal attribution. On the basis of these princples the Theory of External Attribution suggests that a pattern of high consensus, distinctiveness, and consistency will result in maximal stimulus attribution, while low consensus and distinctiveness and high consistency will produce maximal personal attribution. In contrast, circumstantial attribution should be maximized when consensuality of the action is low, distinctiveness is high, and the behavior is of low consistency across time and modality.

Although the theories of Jones and Davis (1965) and Kelley (1967) were both derived from Heider's (1958) analysis of the attribution process, the Theory of Correspondent Inference includes both cognitive and motivational concepts, whereas the Theory of External Attribution limits itself to information processing variables. An advantage of Kelley's theory is its consideration of the role of temporal consistency in dispositional attribution and the concomitant recognition that causality may be attributed along a stable-unstable dimension as well as a personal-environmental one. In this respect the Theory of External Attribution bears a closer resemblance to Heider's theory than does the Jones and Davis model. Despite their apparent dissimilarities both theories view behavioral deviance as an important antecedent to the attribution of personal dispositions. Whereas the concept of assumed

desirability is formulated in terms of the perceiver's anticipation of the effects most individuals would desire in the particular situation, the notion of consensuality is conceptualized as the perceiver's knowledge of what response is actually normative for that stimulus. As Jones and McGillis (1976) have emphasized, when desirability is conceptualized as the behavior's a priori probability of occurrence, the two concepts are identical. Both theories embrace the principle that greater personal causality will be inferred from statistically deviant than normative actions.

After an introduction to the research area of mental illness inference, there will follow a review of the attribution concepts of interest in the present study. These include the notions of consensus, consistency, and behavioral valence, a third variable found by attribution research to affect the outcome of the process of causal attribution.

The Inference of Mental Illness: A Review

The primary focus of studies concerned with the public's perception of mental illness has been the investigation of the layperson's social tolerance for the individual to whom the label has been applied. In general it has been found (Cumming & Cumming, 1957; Nunnally, 1961; Crumpton, Weinstein, Acker, & Annis, 1967; Sarbin & Mancuso, 1970) that individuals described as mentally ill are negatively valuated and socially rejected. However, other studies suggest that it may be the actual or anticipated behavior of the individual so described rather that the label itself that elicits negative attitudes from the perceiver. In accord with this view, Gergen and Jones (1963) found that agents labelled as being mentally ill are unfavorably evaluated only when they

engage in unpredictable behavior that is perceived as being under their control and that has unpleasant consequences for the perceiver. Calhoun et al. (1974) discovered that regardless of the source of help sought (friend vs. mental health clinic vs. clinical psychologist), the "helpseeker" is not socially rejected (but nor is mental illness ascribed to him) when he attributes his problems to external as opposed to internal intrapsychic factors (job loss vs. personality traits). It seems likely the perceiver anticipates that the agent who ascribes his problems to stable personality dispositions will display more unacceptable behavior cross-situationally. He therefore both labels him as mentally ill and has reduced social tolerance for him. Perhaps because of the strong association by the public of mental illness with nonnormative behavior, the perceiver, who has no knowledge of the so-labelled individual's actions, makes the inference that they will be deviant and thus is prompted to negatively valuate him. Lehmann, Joy, Kriesman, and Simmens (1976) have shown that when the mental illness label is divorced from the symptomatic behavior, the behavior but not the label produces negative attitudes. In this study, perceivers saw videotapes of three patterns of behavior: "depressed," "anxious," and "normal." One of the actors was described as an ex-mental patient. Labeling, actors on videotape, and order of presentation were all fully counter-balanced. The symptomatic behaviors produced negative ratings on a social distance scale, while the label did not. In addition, agents showing symptomatic behaviors were rated as being more dangerous, irresponsible, and unpredictable.

To summarize this line of research of the perception of mental illness, the studies of Gergen and Jones (1963) and Lehmann et al.

(1976) strongly indicate that it is the behavior rather than the label in and of itself that elicits negative valuations and rejection. However, at the same time, other research (Cumming & Cumming, 1957; Nunnally, 1961; Calhoun et al., 1974) has shown that when the perceiver does not have direct access to the behavior of the individual, because of the tendency to associate mental illness with nonnormative behavior, the label itself is likely to evoke negative attitudes.

Of greater relevance to the present study is the research concerned with the conditions under which laypersons make an inference of mental illness. The method traditionally used has been presentation of descriptions of different behaviors that conform to standard psychiatric syndromes. The perceiver is then asked to make various attributions about the agent whose behavior is being described. The descriptions most commonly used are those of Star (1955) which represent six cases which mental health professionals would label as simple schizophrenia, paranoid schizophrenia, compulsive neurosis, anxiety neurosis, alcoholism, and character disorder. The most general finding (Maisel, 1951; Lemkau & Crocetti, 1962; Phillips, 1964; Dohrenwend & Chin-Shong, 1967) has been that the largest number of perceivers make an inference of mental illness to the agent whose behavior is characteristic of the paranoid schizophrenia syndrome. However, the proportion of observers who actually attribute mental illness to this particular agent has varied considerably across studies. Whereas Dohrenwend and Chin-Shong (1967) found that 87% of their sample responded that the actions of the "paranoid schizophrenic" were both serious and indicative of mental illness, an early study (Maisel, 1951) using different case descriptions found only 28% of the subjects recommended psychiatric care for the equivalent case description.

The mental illness inference elicited by the other syndrome descriptions has been even more variable. While Lemkau and Crocetti (1962) reported that 50% of their sample identified the "simple schizophrenic" and "alcoholic" as well as the "paranoid schizophrenic" as being mentally ill, Yamamoto and Dizney (1967) using the same descriptions found that mental illness was ascribed for none of the psychiatric syndromes, if failure to attribute mental illness can be inferred from failure to recommend institutional care.

The discrepancies in results of various studies appear to be an effect of both the dissimilarity of the dependent variable measure employed by different studies and the diversity of the populations sampled. Some studies have directly inquired whether the agent is mentally ill, others about the type of help, if any, he should receive, others about whether he should be institutionalized, and still others about the perceivers' tolerance for the agent in terms of acceptable social distance. Thus the conclusions drawn are based on different and frequently rather tenuous assumptions about the relationship between mental illness and other factors. In addition it has been found (Lemkau & Crocetti, 1962; Sarbin & Mancuso, 1970) that willingness to ascribe mental illness varies with educational and socioeconomic factors, the more highly educated and financially secure being more inclined to apply the label. It therefore is likely that the disparate results are at least partially due to differences in population from which the perceivers were drawn.

Although such problems make it difficult to arrive at any unqualified conclusions, the body of evidence does suggest that the layperson is most likely to infer mental illness when the agent's behavior is both extremely deviant (Lemkau & Crocetti, 1962; Dohrenwend & Chin-Shong, 1967) and

threatening to others (Gergen & Jones, 1963; Phillips, 1964). On the
basis of this same evidence Sarbin and Mancuso (1970) have concluded
that only when both of these conditions are present will the public
apply the mental illness label.

A quite recent study (Underwood & Moore, 1977) that represents a
departure from the usual method of psychiatric syndrome description
offers support to these conclusions. The investigators were primarily
interested in the personality characteristics of individuals who ascribe
mental illness and found, as predicted, that these individuals score
higher on measures of external locus of control and marginally lower
on measures of complexity of view of human behavior. Of more interest
in the present context is that when extremity of behavior was varied by
presenting preceivers with two stories climaxing in behaviors varying
in this respect, it was found that the more extreme action was rated
as being less reasonable, more due to something about the agent, and
more a result of mental illness. It is worthy of note that both the
more and less deviant action were negative.

Taken together, these studies strongly suggest that two variables
of central importance in eliciting attributions of mental illness are
statistical deviance and valence of the agent's behavior. This evidence
accords well with the observations of a number of mental health pro-
fessionals. Szasz (1960) has noted that in contrast to physical illness
which is diagnosed on the basis of deviation from norms of structure
and function of the body, the criterion for diagnosis of mental illness
is deviation of behavior from psychosocial and ethical norms. Hartman
(1960) speaks of "a trend in our civilization" to discard the difference
between health and moral valuations and indiscriminately label people or

actions as "healthy" or "sick" rather than "good" or "bad," "social" or "antisocial." Hartung (1965) and Sarbin (1967, 1969) have made similar observations about the ascription of mental illness on the basis of violation of norms of propriety.

Although it has received scant attention in the recognition of mental illness literature, another variable that appears to be relevant to the attribution of mental illness is the ipsative deviancy or consistency of the agent's behavior. When the perceiver is acquainted not only with the action that has occurred but also with the agent of the action, one would expect the perceiver's ascription of mental illness to vary with the degree to which the action is consistent with the agent's own norms of behavior. Knowledge of what is normative for the agent helps the observer to make inferences not only about the possible situationality of the behavior but also about the apparent change in dispositions governing the action. Yarrow, Schwartz, Murphy, and Deasy (1955) have reported findings bearing on this latter issue. Investigating the initial recognition of a "problem" by wives of men subsequently labelled mentally ill, these authors found that a number of the women first expressed concern when "deviations from routines of behavior" or "changes or accentuations in personality traits" appeared to occur. Along similar lines, Gergen (1968) has noted that mental health professionals also frequently equate behavioral incon-sistency with mental illness.

Since the variables suggested by the clinical literature to affect ascription of the mental illness label (statistical and ipsative norm deviation and valence) are quite similar to those found in the attribution research to influence the attribution of dispositions in

general, the discussion will now turn to this area of research. In order
that hypotheses about the attribution of mental illness-mental health
(AMI-AMH) might be derived from attribution theory, the constructs of
mental illness and mental health will be conceptualized as personal
dispositions.

Dispositional Attribution: The Effects of Behavioral
Consensus, Consistency, and Valence

Consensus

According to Kelley (1967), one potential source of information
about the origin of an individual's behavior is in the comparison of
his action with that of others. Behaviors that are congruent with those
of the general population (high consensus) are expected to be perceived
as emanating from external stimuli, whereas behaviors that are incongruent
with those of others (low consensus) are expected to be viewed as arising
from a personal disposition. Evidence in support of this proposition
has been somewhat mixed. Although a number of studies (McArthur, 1972,
1976; Orvis, Cummingham, & Kelley, 1975; Ruble & Feldman, 1976) have
found the anticipated effect for consensus, they have also observed that
this type of information has the weakest effect on causal attribution
of Kelley's three information variables. Both distinctiveness and
consistency account for a sizeably greater percentage of the variance.
In addition, the effects of consensus information appear to be com-
paratively more susceptible to method of information presentation.
Ruble and Feldman (1976) have found that consensus effects are altered
by order in which consensus information is given. Using the stimuli
of McArthur (1972), these investigators replicated the findings of past
studies that consensus information when presented first, as it
traditionally has been, has the smallest impact on dispositional

attribution. However, when order of information was fully counter-
balanced, consensus effects were as robust as those of distinctiveness
and consistency. Neither distinctiveness nor consistency were subject
to the effects of order of presentation. It has also been found
(Feldman, Higgins, Karlovac, & Ruble, 1976) that the strength of
consensus varies with whether the information is presented successively
or simultaneously. Successive presentation of consensus information
appears to augment its effectiveness.

Other studies suggest that under certain conditions consensus
information may have no effect on causal attribution. Hansen and Lowe
(1976) discovered that when theoretically ambiguous information was
presented by pairing high consensus with low distinctiveness or low
consensus with high distinctiveness, actors (but not observers) ignored
consensus information and attributed causality solely on the basis of
level of distinctivenss. In the previously mentioned study of Feldman
et al. (1976) it was found that when perceivers had direct information
about the stimuli, consensus was not an effective attribution determinant.
Only when participants were prevented from viewing the stimuli to which
the agent was responding did the expected consensus effect obtain.

Nisbett and Borgida (1975) have raised the question of whether
consensus is indeed of any information value. Three of the primary
studies leading these investigators to this query were one by Miller,
Gillen, Schenker, and Radlove (1973) and two of their own (1975) using
a similar methodology. Miller et al. (1973) presented perceivers with
the procedure section of the Milgram (1963) obedience study and manipulated
consensus by giving part of the participants the information that 65%
of Milgram's subjects had delivered the maximal possible shock (high

consensus condition). It was expected that subjects in the informed group would attribute less personal causality than the uninformed group (low consensus condition) who were unaware that the behavior was normative. Although the study contained no overall measure of personal-environmental attribution, it was inferred from triat rating measures that consensus had no effect on causal attributions. On only one of the eleven traits rated did high and low consensus perceivers differ. In like fashion, Nisbett and Borgida (1975) gave participants detailed synopses of the procedures of two experiments, one on shock tolerance (Nisbett & Schachter, 1966) and the other on helping behavior (Darley & Latané, 1968). The modal behavior in the shock study was to tolerate severe shock; and in the helping study, not to respond to a confederate's feigned seizure. As in the Miller et al. study (1973), only a portion of the participants were given the results of these two experiments. The major attributional measure was rating on a 7-point scale of the extent to which the behavior of one of the subjects who engaged in the modal action was a result of his personality. The results clearly indicated that consensus information had no effect on attribution in either of the studies. On the other hand, it was found that participants who had been given no consensus information but who had seen a videotape of two subjects engaging in the modal behavior were willing on this basis to infer that the extreme behavior was normative. Nisbett and Borgida (1975) have suggested that the apparently greater impact of single (target) case than consensus information (Kahneman & Tversky, 1971) on causal attribution is a result of the more vivid and concrete nature of target case information.

Recent studies have helped elucidate the conditions under which consensus information is ineffective as a determinant of environmental-personal attribution. Wells and Harvey (1977) replicated the Nisbett and Borgida (1975) shock tolerance study, but cross-cutting the consensus manipulation was a manipulation of knowledge of sampling procedure of the original Nisbett and Schachter (1966) study. Part of the perceivers were assured of random sampling, while the remainder were not given this information. In the latter condition the results were identical to those of Nisbett and Borgida (1975). There was no difference in personal attribution between consensus conditions. However, when perceivers were informed of the representativeness of the sample, consensus information had the expected effect.

In accord with the suggestions of previous research (Feldman et al., 1976; Hansen & Lowe, 1976; Wells & Harvey, 1977) a series of studies by Hansen and Donoghue (1977) has shown that under certain conditions perceivers may generate consensus information from their own behavior and form causal attributions from this self-based consensus information. Hansen and Donoghue's hypotheses were derived from the concepts of the law of small numbers (Kahneman & Tversky, 1971; Nisbett & Borgida, 1975) and egocentric attribution (Heider, 1958). As put forward by Kahneman and Tversky, the law of small numbers states that perceivers are more willing to infer population performance from information based on one target case than from sample-based information. Heider's concept of egocentric attribution refers to the perceiver's tendency to infer population norms from his own behavior and to dismiss the discrepant behaviors of others as being nonnormative and thus attributable to personal factors. Hansen and Donoghue (1977) view knowledge of one's own behavior as being the most compelling source of target case information.

The first study (Hansen & Donoghue, 1977) was concerned with the conditions under which perceivers use sample-based information to make causal attributions. The experiment was described as a consumer marketing survey to test the popularity of a new drink. Following either sampling of the beverage by actor-participants or viewing by observer participants of a videotape of a confederate sampling the beverage, base rate consensus was manipulated by having actors and observers find either that all other individuals had consumed approximately the same quantity (high consensus) or much less (low consensus). As in the Wells and Harvey (1977) study, half of the participants were assured of the representativeness of the sample. In accord with prediction, sample-based consensus had no effect on attributions made by actors (those who had sampled the beverage) about their own behavior, regardless of information about sampling techniques. In both conditions actors viewed their own behavior as similar to the rest of the population (i.e., estimated that a majority of the population would drink a similar quantity) and attributed their performance more to the environment than to themselves. Thus actors disregarded sample-based consensus and inferred population norms and attributed causality on the basis of their own behavior. In contrast, observers were willing to use sample-based consensus information in estimating population percentage and attributing causality, but only when information about random sampling was provided. In this condition high consensus resulted in significantly less personal and greater environmental attribution for the confederate's performance than low consensus. Also in this condition there was a greater population percentage estimate (75% vs. 32%, respectively). When observers were given no information about the representativeness of the sample, there was no

difference in high and low sample-based consensus conditions on any of the attribution measures.

Employing an actor only paradigm, the second study (Hansen & Donoghue, 1977) further elucidated the tendency of perceivers to generate inferences about population performance from their own behavior and to use this information in the causal attribution process. Following sampling of the beverage, participants were shown a videotape of another session. All perceivers were told that the videotaped agent had been randomly selected. In the high consensus condition the agent (a confederate) was seen drinking an approximately equal amount of the liquid; and in the low consensus condition, a much greater quantity. Only this target-based consensus information was given. There was no manipulation of sample-based consensus. After viewing the tape, perceivers made population estimates and then half of the participants made attributions for their own behavior and half, for the behavior of the confederate. It was found that when making self-attributions, perceivers viewed their response to the beverage as normative and there was no difference in either personal or environmental attribution between groups that saw the confederate drink a similar or dissimilar quantity. Attributions made for the other's performance reflected a comparison between the attributor's own behavior and that of the other. When the other's performance was similar to their own, attributors perceived the response as normative and attributed it to the beverage. When it was dissimilar, the attributor viewed it as statistically deviant and attributed it to the other's personality. Taken together, these findings indicate that perceivers use their own response to infer population norms and make causal attributions, both for their own and the behavior of others.

In their final study Hansen and Donoghue (1977) manipulated both self- and sample-based consensus information. As expected, it was found that in the absence of self-based information, high sample-based consensus resulted in greater environmental attribution; and low sample-based consensus, in greater personal attribution. Also as anticipated, in the absence of sample-based consensus, high self-based consensus information produced greater environmental attribution and low self-based consensus information, greater personal attribution. Contrary to prediction, when perceivers had access to both sample- and self-based consensus information, the presence of sample-based consensus that was incongruent with self-generated consensus did not attenuate the effects of self-based consensus; nor did the presence of congruent sample-based consensus augment the effects of self-generated consensus. Thus the effect of sample-based consensus information was negligible when the perceiver had access to self-based consensus.

To summarize the past research on consensus as an attributional determinant, the studies of Feldman et al. (1976) and Ruble and Feldman (1976) suggest that its effects may be either weakened or strengthened by formal variables such as method of presentation (first vs. last item of information presented; simultaneous vs. successive temporal presentation). Further evidence (Hansen & Lowe, 1976; Feldman et al., 1976; Hansen & Donoghue, 1977) strongly indicates that the effectiveness of consensus information as a determinant of dispositional attribution is dependent on its congruence with the perceiver's self-generated behavioral norms, at least when the perceiver is familiar with the stimulus. This is most likely to be the case in many social situations. In order to eliminate this source of contamination it appears essential

that researchers either use novel settings or control for the
perceiver's self-based consensus (cf., Hansen & Lowe, 1976; Hansen &
Donoghue, 1977).

Consistency

A second source of information about the origin of an individual's
behavior, according to Kelley (1967), is in knowledge of whether the same
response occurs whenever the stimulus is present, across dimensions of
time and perceptual or sensory modality. Behavior that is low in
consistency is expected to induce a situational attribution and behavior
high in consistency, a dispositional attribution (either to the person
or the stimulus). Although there have been relatively fewer studies
manipulating consistency than consensus information, these have been
unconditionally supportive of the consistency principle. In the initial
test of Kelley's model, McArthur (1972) found that high consistency, as
predicted, led to dispositional attributions and low consistency resulted
in attributions to the situation. Overall, consistency information
accounted for the greatest percentage of the variance. Orvis, Cunningham,
and Kelley (1975) have reported similar findings. In both the McArthur
(1972) and Orvis et al. (1975) studies, the greater effect of consistency
than consensus and distinctiveness on causal attribution was a result
of the former's powerful effect on circumstance attribution. Interest-
ingly, Orvis et al. also found that a stronger relationship exists
between high consistency and environmental dispositional attributions.
When given high consistency information and asked to supply the missing
information, participants were more likely to infer that the action was
low in distinctiveness (implying a personal attribution). Also when
given only high consistency information and asked to make causal

attributions, they were more likely to attribute the action to the person than to person-stimulus or stimulus alone.

The findings of McArthur (1972) and Orvis et al. (1975) of the effect of consistency information on causal attribution have received further confirmation by the previously mentioned study of Ruble and Feldman (1976). Although the strength of consistency varied somewhat with the order in which the information was presented, overall it again proved to be the most effective determinant of attribution.

Valence

A third variable that has been found to influence the causal attribution process is valence, whether the agent's traits or actions are negative or positive. Studies of impression formation (Anderson, 1965; Abelson & Kanouse, 1966; Feldman, 1966) have shown that negative adjectives are given more weight and thus have a greater impact on the perceiver's evaluation of the agent than positive adjectives. Research on the attribution of responsibility (Shaw & Sulzer, 1964; Shaw, 1968; Shaw, Floyd, & Gwin, 1971) has found that more responsibility is attributed to agents who engage in negative actions than to agents whose actions are positive. This result obtains both when the actor's outcome is intentional and when it is unintended but foreseeable. If, as the results of a study by Lowe and Medway (1976) suggest, general dispositional attribution is mediated by attribution of responsibility, then there should also be greater dispositional attribution for negative than positive actions. However, one of the few studies to examine the effects of valence on dispositional attribution appears to disconfirm this expectation of a negativity effect. Investigating the effects of making causal attributions for one's own behavior versus that of

another on dispositional-situational attributions, Taylor and Koivumaki (1976) presented perceivers with a questionnaire containing both positive and negative actions and had them make attributions for these behaviors. The investigators discovered a positivity effect: there was actually greater dispositional attribution for <u>positive</u> actions and situational attribution for <u>negative</u> actions. A central difference between this and the previously mentioned studies is that in the latter, perceivers made evaluations and attributions for agents with whom they were not acquainted. In the Taylor and Koivumaki (1976) research, perceivers had a varying degree of familiarity with the agent (ranging from spouse and best friend to a nationally known news commentator); and it was found that the positivity effect operated most powerfully when perceivers made attributions for intimate others. This finding is consistent with the results of a study by Imamoglu (1966) which investigated the effects of liking or disliking the actor on attribution of intentionality for negative and positive outcomes. In accord with prediction, it was found that in the case of a liked agent, positive outcomes were perceived as being intentional and negative outcomes, as being accidental. When the agent was disliked the opposite was true. Thus motivational factors attendent to knowing (and liking or disliking) the agent may act to either eliminate or augment the negativity effect.

The common finding of greater causal attribution for negative than positive actions when the perceiver is unacquainted with the agent is generally interpreted in terms of the principle of social desirability (Jones & Davis, 1965; Shaw, 1968; Kanouse & Hanson, 1972). Behavior that is high in social desirability, as in the case of positive actions, is relatively uninformative about its causal locus. The possibility

that it originates with the agent is obscured by the fact that it is also expected because of environmental demand. However, behavior that is of low social desirability, such as negative actions, enables the perceiver to eliminate the possibility of environmental causality. The result is that greater causal attribution is made to the agent who engages in negative actions.

The Jones and Davis (1965) concept of social desirability was derived from the results of two early attribution studies (Thibaut and Riecken, 1955; Jones, Davis, & Gergen, 1961). In the Thibaut and Riecken (1955) study participants were given a task that necessitated requesting help from two other participants (actually experimental confederates). It was disclosed that one of these confederates was of higher and one of lower status than the true participant. After the participant's request for help from the confederates, both eventually complied simultaneously with the request. At the conclusion of the experiment the subject was asked to attribute causal explanations for the confederates' helping behavior. A majority attributed the compliance of the "higher status" confederate to a desire to help and that of the "lower status" confederate to external forces. Because the behavior of the lower status confederate was high in social desirability, participants were unwilling to conclude that the action revealed anything about him. In the Jones, Davis, and Gergen (1961) study individuals were required to listen to a recorded interview of applicants for training as either an astronaut or a submariner. In the first part of the interview the job requirements were delineated. The specified job qualification for astronauts was inner-directedness and for submariners, other-directedness. In the second part of the recording they heard

interviewees describe their own characteristics either in a manner consistent or inconsistent with the role requirement. Participants then rated the personality characteristics of the applicants and their degree of confidence in these ratings. The results indicated that subjects gave out-of-role applicants, those whose behavior was low in social desirability (other-directed astronauts and inner-directed submariners), more extreme trait ratings and expressed more confidence in their judgments. Following its introduction into the Theory of Correspondent Inference (Jones & Davis, 1965) the concept of social desirability has received support from a number of other studies (Ajzen, 1971; Messick & Reeder, 1972; Lowe & McConnell, 1977).

In the following section hypotheses regarding personal dispositional attribution and the attribution of mental illness-mental health will be derived from the attribution variables of consensus, consistency, and valence.

Statement of Purpose and Hypotheses

The primary objective of the present study is to investigate the effects of the information variables of statistical and ipsative norm deviation and valence on the attribution of mental illness. A related purpose is to determine whether these same variables are effective determinants of the attribution of superior mental health.

A secondary objective is the extension of past findings of the effects of statistical and ipsative norm deviation (consensus and consistency, respectively) on dispositional attribution to conditions in which behavioral valence is manipulated, as this variable has not been previously investigated concomitantly with consensus and consistency information.

A less formal purpose of the present study is the comparison of the relative strengths of statistical and ipsative norm deviation and valence as determinants of general dispositional attribution and the attribution of a specific disposition (mental illness-mental health). Founded on the previously mentioned attributional research, it is anticipated that negative valence will serve to enhance dispositional attribution, whereas the recognition of mental illness literature suggests that it will be a pivotal variable in attribution of mental illness-mental health. It is also expected that the relative strengths of statistical and ipsative norm information as attributional determinants will differ for general dispositional attribution and the attribution of mental illness-mental health. Based on the findings of McArthur (1972) and Orvin, Cunninghan, and Kelley (1975), it is anticipated that ipsative norm (consistency) information will be the more effective determinant of dispositional attribution, while the results of Lemkau and Crocetti (1962) and Dohrenwend and Chin-Shong (1967) indicate that statistical norm deviation (consensus) information will be the more powerful determinant of attribution of mental illness-mental health.

In the following sections the primary and secondary experimental hypotheses will be presented along with a discussion of the source from which they were derived. Each section will conclude with a summary statement of the hypotheses. Since dispositional attribution is more fundamental and has the potential of providing additional information about the attribution of mental illness-mental health, the statement will begin with the former dependent variable.

Hypotheses: Dispositional-Situational Attribution

The hypotheses relating to dispositional-situational attribution

are derived from attribution theory and research. On the basis of consensus information, it is expected that there will be increasingly greater dispositional relative to situational attribution as the agent's action becomes increasingly deviant from the statistical norm (decreases in consensuality). It is also anticipated, on the basis of consistency information, that as the agent's behavior becomes increasingly in accord with his ipsative norm (increases in consistency) there will be increasingly greater dispositional relative to situational attribution. Finally, founded on the concept of social desirability, it is expected that there will be greater dispositional relative to situational attribution made to agents whose actions are negative than to those whose actions are positive. The greatest amount of relative dispositional attribution is anticipated to result when the agent's behavior is highly deviant from the statistical norm, nondeviant from the ipsative norm, and of negative valence.

The specific hypotheses are as follows.

Hypothesis 1. Significantly greater dispositional relative to situational attribution will be made to agents whose actions increasingly deviate from the statistical norm.

Hypothesis 2. Significantly greater dispositional relative to situational attribution will be made to agents whose actions are negative than to those whose actions are positive.

Hypothesis 3. Significantly greater dispositional relative to situational attribution will be made to agents whose actions are characterized by zero than long-term and long than short-term ipsative norm deviation.

Hypotheses: Attribution of Mental Illness-Mental Health (AMI-AMH)

The hypotheses concerning attribution of mental illness-mental
health are derived from both past research in the area of recognition
of mental illness and concepts taken from attribution theory. It is
expected that there will be greater attribution of mental illness
for negative than positive actions; and it is thought that negative
behavior generally will be associated with mental illness and positive
behavior, with superior mental health. However, because of the greater
difficulty in eliminating situational factors as the possible origin
of positive actions (i.e., social desirability) it is anticipated that
the correspondence between negative behavior and mental illness attri-
bution will be greater than that between positive behavior and superior
mental health. The negative valence hypothesis is based on research
using the case description method (Phillips, 1964; Dohrenwend & Chin-
Shong, 1967) which suggests that mental illness is ascribed pre-
dominantly when the agent's behavior is "threatening to others."
Although there is no evidence regarding the relationship between
behavior beneficial to others and the attribution of superior mental
health, this prediction is in accord with the observations of Hartman
(1960) and numerous other writers in the field of the tendency to equate
health valuations with valuations of morality.

Derived from the attributional concept of consensuality, it is
anticipated that as the agent's behavior becomes increasingly more
deviant from the statistical norm there will be increasingly greater
attribution of mental illness for negative actions and superior mental
health for positive actions. That is, assuming correspondence between
behavioral valence and the inference of dispositions of mental illness

and mental health, decreasing consensuality of the behavior should result in increasingly greater attribution of these dispositions. For negative valence this expectation is also in accord with the empirical work of Lemkau and Crocetti (1962), Dohrenwend and Chin-Shong (1967), and Underwood and Moore (1977).

Another attributional concept, consistency information, leads to the prediction that there will be greater attribution of mental illness or mental health, for negative and positive actions, respectively, when the agent's behavior is consistent with his ipsative norm than when it is a short-term deviation from it. Since chronic behavior on the part of the individual is more likely to be perceived as originating in a personal disposition, ipsatively normative behavior should elicit greater attributions of mental illness and mental health than behavior that is temporarily ipsatively deviant. These hypotheses are again founded on the assumption of a relationship between valence of behavior and the inference of mental illness-mental health.

Taken together, the final two hypotheses concerning behavioral consistency predict differential effects for long-term and non-ipsatively deviant behaviors of negative and positive valence. When actions are consistent over a moderate period of time but are dissimilar to the individual's original ipsatively normative behavior, if it is the case that the new behavior is positive, the perceiver has recourse to a readily available environmental explanation because of the desirability of such behavior. Therefore it is expected that there will be less attribution of mental health made to the agent whose positive actions are characterized by long-term than zero ipsative norm deviation. However, in the event the new behavior is negative, an

explanation other than social demands and rewards (an external attribution) appears to be demanded. Assuming a general belief by the perceiver in the stability of personal dispositions (Mischel, 1968; Jones & Nisbett, 1972), it is reasonable to expect that instead of making a personal dispositional attribution that contradicts such a belief (the formerly "good" person is now "bad"), the perceiver will prefer to refer the new behavior to the superordinate disposition of mental illness. Thus the disposition of "goodness" remains inherent in the agent but is being held in abeyance by the new and more potent disposition of mental illness. Therefore on the basis of mental illness as an explanatory concept, it is anticipated that for negative actions, particularly those that are not highly statistically deviant, there will be greater attribution of mental illness made to agents whose actions are characterized by long-term ipsative norm deviation (behavioral change) than those whose behavior is ipsatively nondeviant. This hypothesis is in accord with the finding of Yarrow et al. (1955) that mental illness was first ascribed to a spouse when changes in personality traits were observed, especially if the alteration in behavior was in a negative direction. Gergen (1968) has also taken note of the tendency, this time in the psychological literature, to equate behavioral inconsistency with mental illness.

These hypotheses are stated below in summary form.

Hypothesis 4. Significantly greater mental illness will be attributed to agents whose actions are characterized by negative than positive valence.

Hypothesis 5. For negative valence significantly greater attribution of mental illness will be made to agents whose actions increasingly deviate from the statistical norm.

Hypothesis 6. For positive valence significantly greater attribution of mental health will be made to agents whose actions increasingly deviate from the statistical norm.

Hypothesis 7. For negative valence significantly greater attribution of mental illness will be made to agents whose actions are characterized by zero than short-term ipsative norm deviation.

Hypothesis 8. For positive valence significantly greater attribution of mental health will be made to agents whose actions are characterized by zero than short-term ipsative norm deviation.

Hypothesis 9. For negative valence significantly greater attribution of mental illness will be made to agents whose actions are characterized by long-term than zero ipsative norm deviation.

Hypothesis 10. For positive valence significantly greater attribution of mental health will be made to agents whose actions are characterized by zero than long-term ipsative norm deviation.

Hypotheses: Confidence in Attribution of Mental Illness-Mental Health

The hypotheses concerning attribution confidence are derived from the principle of information ambiguity and from the concepts of attribution theory. The term "information ambiguity" is used in the present study to refer to the situation which exists when a level of any one of the information variables suggests the possibility of making more than one dispositional inference (mental illness vs. normal personality vs. superior mental health) on the basis of the agent's actions. Where information ambiguity is less likely to be a salient factor, the hypotheses are derived from attribution theory and research.

In general it is expected that there will be less confidence expressed in attributions of mental illness-mental health made to

agents whose actions are moderately deviant statistically than to those
whose actions are either nondeviant or highly deviant from the
statistical norm, since the former is expected to lead to a less
correspondent inference. To the agent whose negative behavior is
moderately deviant statistically, there exists the possibility of
making an attribution of either normal personality or mental illness.
Such a possibility is reduced at the levels of zero and high statistical
norm deviation which are more likely to be associated more closely
with attributions of normal personality and mental illness, respectively.
Thus the perceiver is expected to be more confident in the attributions
made in the latter two conditions. Similarly, for positive actions,
there is more information ambiguity when the behavior is moderately
deviant statistically, as it fails to eliminate the possibility of an
attribution of either normal personality or superior mental health.
As a consequence, it is anticipated that for positive as well as
negative actions less attributional confidence will be expressed in
attributions made at the intermediate level of statistical norm
deviation.

Since negative and positive valence both have the potential of
eliciting either of two dispositional attributions (mental illness vs.
normal personality in the case of negative behavior and normal
personality vs. superior mental health in the case of positive behavior),
the issue of ambiguity should be less salient for this information
variable. As a result, however, of the greater desirability of positive
actions, the problem is expected to be the more fundamental one of
whether the positive behavior is dispositional in origin rather than
the concern of the particular disposition from which it originates.

Thus on the basis of social desirability it is expected that there will be greater confidence in AMI-AMH for attributions made to agents whose actions are of negative than positive valence.

Based on the above mentioned considerations, the issue addressed by short-term and zero ipsative norm deviation is whether the agent's actions stem from an underlying disposition or factors external to the agent. On the basis of the consistency principle it is anticipated that there will be greater attributional confidence for both positive and negative actions when the agent's behavior is characterized by long- than short-term ipsative norm deviation.

The final hypotheses concerning ipsative consistency predict differential effects of short- and long-term ipsative norm deviation on confidence in AMI-AMH as a function of behavioral valence. When the agent's negative behavior evidences consistency over a moderate span of time (long-term ipsative norm deviation), the issue of whether to attribute mental illness rather than normal personality to the agent is likely to be more problematical than it is when the agent exhibits the behavior only once (short-term ipsative norm deviation). Therefore, because of the greater informational ambiguity inherent in negative behavior that is ipsatively deviant for a long-term, it is anticipated that there will be less attributional certainty expressed for attributions made to agents whose actions are long- than short-term ipsatively deviant. However, in the case of positive behavior, there should be a decrease in ambiguity with increases in behavioral consistency, since any such increase reduces the possibility that the agent's action is entirely the result of external exigencies. On these grounds it is expected that there will be greater attributional

confidence when the agent's behavior is characterized by long- than short-term ipsative norm deviation.

It is thought probable, in regard to the hypotheses derived from the principle of information ambiguity, that the predicted effects on attributional confidence expected as a result of ambiguity at certain levels of any of the three attribution variables will be modified somewhat by the presence or absence of information ambiguity at levels of the other information variables with which they are combined. These effects will not be specifically predicted.

The hypotheses on attributional confidence are stated below in summary form.

Hypothesis 11. There will be significantly greater confidence in attribution of mental illness-mental health for attributions made to agents whose actions are characterized by zero and high statistical norm deviation than those characterized by moderate deviation.

Hypothesis 12. There will be significantly greater confidence in attribution of mental illness-mental health for attributions made to agents whose actions are negative than to those whose actions are positive.

Hypothesis 13. For both negative and positive actions there will be significantly greater confidence in attribution of mental illness-mental health made to agents whose actions are characterized by zero than short-term ipsative norm deviation.

Hypothesis 14. For negative actions there will be significantly greater confidence in attribution of mental illness-mental health made to agents whose actions are characterized by short- than long-term ipsative norm deviation.

Hypothesis 15. For positive actions there will be significantly greater confidence in attribution of mental illness-mental health for attributions made to agents whose actions are characterized by long- than short-term ipsative norm deviation.

CHAPTER II

METHOD

The general method was to present subjects with a series of short stories in which the central characters engaged in interpersonal actions that systematically differed in level of statistical and ipsative norm deviation and valence. In order to insure a certain degree of control over level of statistical norm deviation, pretesting was used to determine expectations shared by members of the target population about the prevalence of the actions. This was thought crucial in light of the findings of Hansen and Lowe (1976) that consensus information has negligible effects on attributions when the supplied information differs from subjects' self-generated consensus information.

Determination of Norms

The method used to determine perceived level of statistical norm deviation was to give subjects drawn from the target population a large number of actions and have them indicate their expectations about the frequency of occurrence of these behaviors and their perceptions of whether the actions were negative or positive. The predetermined operational definition for zero statistical norm deviation was that the mean rating must lie between 5.50 and 7.00 on a 7-point scale; for moderate deviation, between 3.50 and 4.25; and for high deviation, between 1.00 and 2.50. To be considered as negative or positive valence it was specified that 70% of the subjects must so classify the action.

Subjects

The subjects used in pretesting were 50 males and 50 females from the target population of undergraduates enrolled in introductory psychology courses at the University of Florida. Participation in psychological research was one of the options for completion of the course. Participants were told that the study was concerned with social perception.

Stimulus Materials

The stimulus materials were 110 interpersonal actions which were believed to range widely in frequency of occurrence and to represent both negative and positive behaviors. These actions were arranged in questionnaire format.

Procedure

Subjects were assembled in small groups of between 5 and 10 persons for administration of the stimulus materials. In addition to the stimulus questionnaire, they were given a response booklet consisting of scales on which to record their responses and a set of mimeographed instructions detailing the nature of the task and the proper use of the scales.

Through the printed instructions participants were informed that the task was a preliminary part of a psychological study for which it was necessary to know the perceived frequency of occurrence and valence of a number of actions. They were told that they were to indicate their perception of the frequency of each action by placing a mark in the space that best corresponded to their estimate of the action's occurrence. The anchors on the 7-point scale were "very common" and "very uncommon" and each space was labelled with a percentage ranging

from "75% or more" to "5% or less." Subjects were further instructed to
indicate whether the action was positive, negative, or neutral by
placing a mark next to the appropriate label. Positive actions were
defined as those "that you evaluate favorably, that you approve";
negative actions, "those that you unfavorably evaluate, that you
disapprove"; and neutral actions, those "that you neither approve nor
disapprove" (Appendix A).

Item Selection

Data from male and female samples were analyzed separately. For
females five actions met the previously specified criteria for zero
statistical norm deviation-negative valence and 17 for zero statistical
norm deviation-positive valence. At the level of moderate statistical
norm deviation six actions satisfied the criteria for negative and six
for positive valence. For high statistical norm deviation 21 actions
met the criteria for negative valence and six for positive valence.
Thus considerably more negative than positive actions were perceived
to be very infrequent in occurrence and many more positive than negative
actions were perceived as normative.

For males, although at least five actions satisfied the criteria
for all other statistical norm deviation-valence combinations, only
one item did so for zero statistical norm deviation-negative valence.
It is possible that this male-female response difference was the result
of females approaching the task more conscientiously or of differences
in socialization history leading females to make finer discriminations
in interpersonal behaviors. However, since the difference was confined
to the zero statistical norm deviation-negative valence cell, it seems
more likely that females were more willing to label actions in which

they had probably engaged as negative. Because of this failure of
the male sample to satisfy fully the criteria, their data were not
subjected to further analysis and the experiment was limited to females.

Based on the data secured from the female sample, four items were
selected to represent each of the six statistical norm deviation-
valence combinations. An attempt was made wherever possible to
select criteria items that had been assigned closely matched ratings
for negative and positive actions at each of the three levels of
statistical norm deviation (see Appendix B for the experimental items).

Experiment

The experimental design was a 3 x 2 x 3 x 2 split-plot factorial
(Kirk, 1968) with three levels of statistical and ipsative norm
deviation and two levels of valence and order of item presentation.
Statistical Norm Deviation (zero, moderate, and high) and Valence
(negative and positive) were within-subject factors and Ipsative Norm
Deviation (short-term, long-term and zero) and Order were between-
subject factors.

Subjects

The subjects for this experiment were 150 female students (age
18-26) from introductory psychology courses at the University of
Florida. At the time of enlisting in the study they were informed
that the experiment was concerned with social perception.

Stimulus Materials

The stimulus materials were short stories constructed from actions
that met the previously discussed criteria. In all there were 24 test
items, four for each of the statistical norm deviation-valence com-
binations. These actions were woven into short stories by giving first
names to the agents and placing the actions in the past tense. In order

to facilitate comparison with previous research (Orvis et al., 1975), the names given the agents were common masculine ones. The resulting stories were arranged randomly in booklet form with the qualification that no more than two consecutive occurrences of actions representing a given level of statistical norm deviation and valence be permitted. Six control items preceded the test items and were included to insure that subjects establish a stable frame of reference prior to responding to the test items. These control items were from the original item pool and each approximated the criteria established for one of the six statistical norm deviation-valence cells.

Ipsative Norm Deviation, a between-subjects variable, was manipulated by varying the nature of the information that followed the statement of the commission of the action by the agent. Three stimulus booklets were created, each representing a specific level of ipsative norm deviation. At the short-term, long-term, and zero ipsative norm deviations, respectively, it was related that the agent had "never behaved that way," "been behaving that way for the past six months," or "always behaved that way." Except for this manipulation the test items were identical across booklets. In all booklets two of the initial six control items represented each of the three levels of ipsative norm deviation. To prevent possible habituation to the ipsative norm deviation manipulation as a result of repeated exposure to a single level, ten filler items were inserted, one following every second or third test item. These items alternately presented the two excluded levels of ipsative norm deviation for a given booklet. They differed across the ipsative norm groups only in the information that followed them. As was the case with the initial control items, these filler items were drawn from the original pool of actions. In all, each stimulus booklet contained 40 items.

The two levels of order of item presentation were created by presenting the last half of the test and filler items immediately following the initial control items in half the stimulus booklets. This produced a total of six different stimulus booklets corresponding to levels (3 x 2) of between-subjects factors (one of these booklets may be seen in Appendix C).

Response Materials

The measures of the dependent variables were Likert-type scales arranged in booklet form. There were 40 items, each corresponding to the like numbered item in the stimulus booklet. Each item had four parts as measures of the three dependent variables.

The first two scales were used to assess relative dispositional-situational attribution and were similar to those used by Storms (1973). Each was a 9-point scale that was anchored at one end by "extremely important" and at the other end by "extremely unimportant." On the first scale the question was asked, "How important were the actor's personal characteristics in causing the behavior?"; and, on the second, "How important were the characteristics of the situation in causing the behavior?" The score on this measure was the ratio of dispositional to situational attribution with scores above 1.0 indicating relatively greater dispositional attribution.

Attribution of mental illness-mental health (AMI-AMH) was assessed by inquiry about the degree of mental health of the agent. Following the question "How would you rate the actor's state of mental health?" was a 15-point scale. The five spaces on either end were designated "superior mental health" and "mental illness" and the five intermediate spaces were labelled "normal personality." Higher scores on this measure indicated increasing attribution of mental illness.

The final dependent variable, attributional confidence, was operationalized by the inquiry, "How confident are you that your rating is close to the actor's _actual_ state of mental health?" A 9-point scale ranging from "extremely confident" to "not at all confident" followed. Lower scores signified greater confidence in one's attribution.

Each of the 40 numbered items in the response booklet was preceded by a space on which to place the name of the agent about whom the attribution was being made. This device was used to help prevent possible mismatching of items in stimulus and response booklets.

Procedure

Subjects were assembled for the experiment in small groups of between five and ten persons. Experimental groups were created at the beginning of each session by random distribution of the six stimulus booklets. In addition to the stimulus materials, they also received a response booklet and a set of mimeographed instructions. All materials, including a postexperimental questionnaire, were coded to identify subject and experimental treatment.

The instructions informed participants that the study was concerned with the perception of other people and that their task would be to answer certain questions based on information given about the actions of these others. They were then instructed in the use of the rating scales and informed as to the nature of the questions. Each of the questions was stated and followed by a definition of key words.

For the measure assessing the relative degree of dispositional-situational attribution in causing the action, personal characteristics was defined on the dispositional scale as "the actor's personality.

traits, character, attitudes, style, etc." On the situational scale
characteristics of the situation was defined as "any factor incidental
to the actor, such as something about the other person, the circumstances,
the situation, etc."

For the attribution of mental illness-mental health measure the
question "How would you rate the actor's state of mental health?" mental
health was defined as "the actor's emotional or psychological health."
The following definitions were given the scale anchors:

> Superior mental health means that the person has achieved
> a higher level of psychological health than most other
> people. Normal personality means that the actor's level
> of mental health approximates that of most other people.
> Mental illness means that the actor suffers from some
> emotional or mental disorder. (Appendix D)

On the final measure subjects were instructed to indicate "the
confidence you have that your rating of the actor's state of mental
health is close to the person's actual state of mental health."

Since the instructions were lengthy, they were informed that
after beginning the task they could refer back to the definitions in
the event the need arose. After answering any questions relevant to
completion of the task and reminding subjects to record their responses
on the correct scales, the experimenter directed them to begin work
(see Appendix D for the full set of instructions for the response booklet).

Following completion of the experiment, participants were instructed
to fill out a postexperimental questionnaire. As a manipulation check
on the Statistical Norm Deviation variable, they were requested to
estimate what they thought to be the frequency of occurrence in the
general population of each of the stimulus actions. Answers were
recorded on a 9-point scale ranging from "very common" to "very
uncommon." In addition they were also asked to indicate the level of

ipsative norm deviation of each stimulus item by placing a mark by one
of the following descriptions of the agent's actions: "only once,"
"past six months," or "always." This task required that they simply
record on the postexperimental questionnaire the ipsative norm
information given for each item in the stimulus booklet. This question
served as a criterion for elimination of data from those who answered
incorrectly more than three items (the complete instructions for the
postexperimental questionnaire are presented in Appendix E).

　　　The time required for completion of both the response booklet and
the postexperimental questionnaire was approximately 55 minutes. At
the end of each session the experimenter attempted to answer questions
and the participants were then dismissed.

CHAPTER III

RESULTS

Data for all dependent variables were analyzed by the analysis
of variance procedure for the split-plot design as outlined by
Kirk (1968, pp. 311-312). All comparisons of two or more means were
based on the Duncan's multiple-range statistic set at the $p < .05$
level of significance.

After consideration of the results of the manipulation check,
the effects of each of the variables will be considered singly
beginning with the evidence regarding dispositional-situational
attribution and proceeding to attribution of mental illness-mental
health and attributional confidence.

Manipulation Check

In order to insure that the statistical norm deviation manipulation
had been effective, an analysis was performed on the postexperimental
ratings of frequency of occurrence of the actions in the stimulus items.
These ratings were made on a 9-point scale with higher scores indicating
greater perceived frequency of occurrence. A highly significant,
$\underline{F}(2, 288) = 1,544.06$, $\underline{p} < .001$, emerged for Statistical Norm Deviation.
Means were ordered in the desired direction (7.08 vs. 4.47 vs. 2.72
for zero, moderate, and high deviation, respectively) and were
significantly different from one another. There was also a significant
main effect for Valence, $\underline{F}(1, 144) = 7.96$, $\underline{p} < .05$, indicating that
negative actions ($\underline{M} = 4.88$) were perceived as occurring somewhat more

46

frequently than positive actions ($\underline{M}$ = 4.62). This result was modified by the presence of a Statistical Norm Deviation x Valence interaction, $\underline{F}$(2, 288) = 165.23, p < .001. Comparison of cell means revealed that the difference in perceived frequency of occurrence of the actions within each valence condition was significant across levels of statistical norm deviation (for negative actions means = 7.13 vs. 5.21 vs. 2.31 for zero, moderate, and high levels, respectively; and for positive actions, 7.02 vs. 3.74 vs. 3.10). This interaction also indicated that at the moderate and high levels but not the zero deviation level there was a significant difference in perceived frequency of occurrence of negative and positive actions. At the moderate deviation level negative actions were perceived as being more frequent (means = 5.21 vs. 3.74 for negative and positive actions, respectively); and at the high deviation level, less frequent (means = 2.31 vs. 3.10) than positive actions. Thus, although the statistical norm deviation manipulation was successful, the attempt to match negative and positive actions for perceived frequency of occurrence was less effective. This was most notably the case at the level of moderate statistical norm deviation where negative actions were rated as more frequent and positive actions less frequent than had been indicated by the pre-testing group.

There was neither a main nor an interaction effect for Ipsative Norm Deviation ($\underline{p}$ > .05), indicating that there was no difference in perceived frequency of occurrence of the actions among the three ipsative norm deviation treatment groups. There was also no effect involving Order ($\underline{p}$ > .05). Thus order of stimulus presentation did not alter perceived frequency of occurrence of the stimulus actions.

As a check on whether subjects attended to the instructions, they were requested to indicate how long the agent's behavior had continued. On the basis of the predetermined criterion, those who answered incorrectly more than three of these responses to the stimulus were excluded from the study. Eight participants were eliminated on these grounds and another five were excluded as a result of incomplete data. These individuals were replaced by others in the same treatment conditions in order to maintain an equal number in each cell.

Dispositional-Situational Attribution

This measure was a ratio score created by dividing mean rating on the 9-point dispositional scale by mean rating on the 9-point situational scale. This resulted in an index on which scores higher than 1.0 indicated increasingly greater dispositional relative to situational attribution.

The results of the analysis of variance performed on this measure are presented in Table 1. There were no reliable differences between scores for the two orders of item presentation ($p > .05$) so this variable was excluded from further analysis. Significant main effects were present for all of the experimental variables: Statistical Norm Deviation, Valence, and Ipsative Norm Deviation. In addition first-order effects emerged for Valance x Ipsative Norm Deviation and Statistical Norm Deviation x Valence. The Statistical Norm Deviation x Ipsative Norm Deviation effect was not significant ($p > .05$) nor were any higher-order interactions. In the following paragraphs these effects will be given detailed consideration and related to the hypotheses.

TABLE 1

SUMMARY OF ANALYSIS OF VARIANCE FOR DISPOSITIONAL-
SITUATIONAL ATTRIBUTION

Source	$\underline{df}$	$\underline{MS}$	$\underline{F}$
Between Subjects:			
Ipsative Norm Deviation (C)	2	268.55	16.21**
Order (D)	1	.61	.04
C x D	2	2.47	.15
Error	144	16.57	
Total Between $\underline{Ss}$	149		
Within Subjects:			
Statistical Norm Deviation (A)	2	53.51	34.99**
A x C	4	.88	.57
A x D	2	1.25	.82
A x C x D	4	.07	.04
Error	288	1.53	
Valence (B)	1	173.14	53.14**
B x C	2	12.41	3.81*
B x D	1	2.61	.80
B x C x D	2	2.90	.89
Error	144	3.26	
A x B	2	69.16	43.09**
A x B x C	4	2.19	1.36
A x B x D	2	4.63	2.88
A x B x C x D	4	3.11	1.93
Error	288	1.60	
Total Within $\underline{Ss}$	750		
Total for Study	899		

*$\underline{p}$ <.05
**$\underline{p}$ <.001

Hypothesis 1. Significantly greater dispositional relative to situational attribution will be made to agents whose actions increasingly deviate from the statistical norm.

As shown in Table 1, there was a significant main effect for Statistical Norm Deviation, $F(2, 288) = 34.99$, $p < .001$. Comparison of means revealed that although results were in the predicted direction, only the difference between moderate and high levels of statistical norm deviation achieved significance (means = 1.45 vs. 1.51 vs. 1.84 for zero, moderate and high levels, respectively). However, this finding must be viewed in the context of a Statistical Norm Deviation x Valence interaction, $F(2, 288) = 43.09$, $p < .001$. The index means involved in this interaction are presented in Table 2. As can be seen, in the negative valence treatment there was as predicted significantly greater dispositional relative to situational attribution with each increase in level of statistical norm deviation. In contrast, for positive valence this effect failed to obtain. This is plotted in Figure 1. There was no difference in dispositional-situational attribution as a function of level of statistical norm deviation ($p > .05$ for all comparisons). A glance at the scores for absolute situational attribution at different levels of statistical norm deviation for positive valence suggests that this effect was a result of greater absolute situational attribution having been made at higher levels of statistical norm deviation. Thus, although there was an increase in absolute dispositional attribution with increases in statistical norm deviation, this increase was counterbalanced by the corresponding increase in absolute situational attribution. Figure 2 presents the differential effects of statistical norm

TABLE 2

MEAN DISPOSITIONAL, SITUATIONAL, AND DISPOSITIONAL-
SITUATIONAL ATTRIBUTION AS A FUNCTION OF
VALENCE AND STATISTICAL NORM DEVIATION

Condition	Valence	
Statistical Norm Deviation	Negative	Positive
Zero Deviation		
Dispositional	6.53	7.34
Situational	6.39	6.56
Dispositional-Situational Index	1.45[c]	1.45[c]
Moderate Deviation		
Dispositional	7.34	7.79
Situational	6.00	7.21
Dispositional-Situational Index	1.69[b]	1.33[c]
High Deviation		
Dispositional	7.70	7.93
Situational	5.54	6.88
Dispositional-Situational Index	2.32[a]	1.37[c]

Note: On the absolute dispositional and situational measures, higher
scores indicate greater dispositional and situational attribution,
respectively. On the dispositional-situational index, scores
above 1.00 indicate relatively greater dispositional attribution.
Means not sharing at least one superscript differ by at least
$p < .05$ as determined by the Duncan's multiple-range test.

Figure 1. Mean Dispositional-Situational Attribution as a Function of Statistical Norm Deviation and Valence
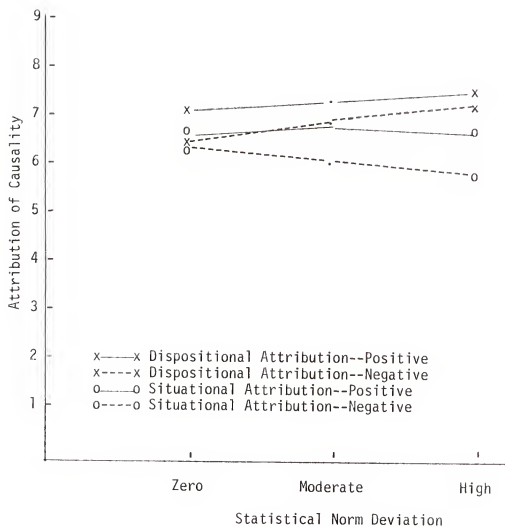
Figure 2. Mean Attribution of Causality as a Function of Statistical Norm Deviation and Valence.

deviation on absolute dispositional and situational attribution for levels of valence. Therefore support for Hypothesis 1 was restricted to the negative valence condition.

Hypothesis 2. Significantly greater dispositional relative to situational attribution will be made to agents whose actions are negative than to those whose are positive.

As reported (Table 1), there was a significant main effect for Valence, $F(1, 144) = 53.14$, $p < .001$. Means were 1.82 vs. 1.38 for negative and positive conditions, respectively. In addition to the main effect this variable was involved in two first-order interactions. The index means relevant to the Valence x Ipsative Norm Deviation interaction, $F(2, 144) = 3.81$, $p < .05$ are presented in Table 3. As can be seen, there was greater dispositional relative to situational attribution for negative than positive actions at all levels of Ipsative Norm Deviation. (The interaction effect was the result of the differences between negative and positive conditions becoming greater with increases in Ipsative Norm Deviation.) These results thus lend support to Hypothesis 2. The index means involved in the Statistical Norm Deviation x Valence interaction, $F(2, 288) = 43.09$, $p < .001$ are presented in Table 2. Examination of the cells reveals that at the levels of moderate and high statistical norm deviation there was, in accord with the hypothesis, significantly greater dispositional relative to situational attribution made for negative than positive valence. However, at the level of zero statistical norm deviation this difference did not obtain ($p > .05$). Therefore support for Hypothesis 2 occurred across all levels of ipsative norm deviation but was limited to the higher levels of statistical norm deviation.

TABLE 3

MEAN DISPOSITIONAL, SITUATIONAL, AND DISPOSITIONAL-
SITUATIONAL ATTRIBUTION AS A FUNCTION OF
VALENCE AND IPSATIVE NORM DEVIATION

Condition	Valence	
Ipsative Norm Deviation	Negative	Positive
Short-Term Deviation		
Dispositional	6.19	6.90
Situational	6.90	7.52
Dispositional-Situational Index	1.25[c]	1.00[d]
Long-Term Deviation		
Dispositional	7.44	7.91
Situational	5.83	6.77
Dispositional-Situational Index	1.81[b]	1.41[c]
Zero Deviation		
Dispositional	7.94	8.25
Situational	5.21	6.35
Dispositional-Situational Index	2.40[a]	1.74[b]

Note: On the absolute dispositional and situational measures, higher
       scores indicate greater dispositional and situational attribution,
       respectively. On the dispositional-situational index, scores
       above 1.00 indicate relatively greater dispositional attribution.
       Means not sharing at least one superscript differ by at least
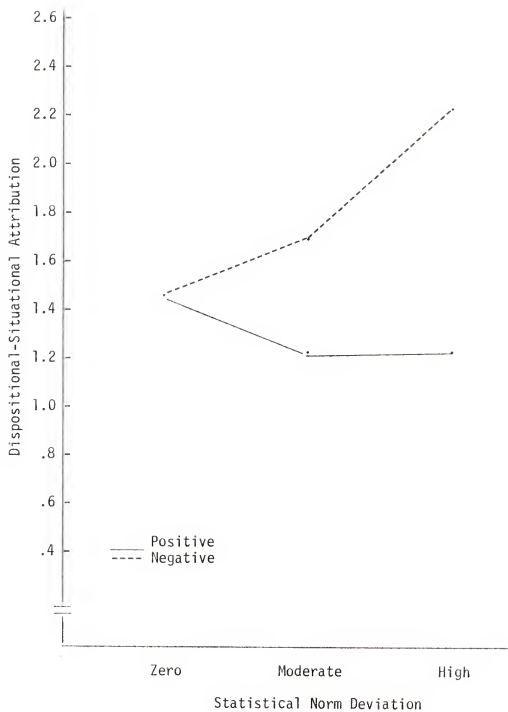 p <.05 as determined by the Duncan's multiple-range test.

Hypothesis 3. Significantly greater dispositional relative to situational attribution will be made to agents whose actions are characterized by zero than long-term and long- than short-term ipsative norm deviation.

Results of the analysis of variance (Table 1) reveal that the main effect for Ipsative Norm Deviation achieved statistical significance, $F(2, 144) = 16.21$, $p < .001$. Index means for short-term, long-term, and zero ipsative norm deviation were 1.12 vs. 1.61 vs. 2.07, respectively; all were significantly different ($p < .05$). This finding was unaltered by the Valence x Ipsative Norm Deviation interaction, $F(2, 144) = 3.81$, $p < .05$. As shown in Table 3, there was significantly greater dispositional relative to situational attribution with decreasing levels of ipsative norm deviation (increasing consistency) for both negative and positive treatments. The effects of ipsative norm deviation on relative dispositional-situational attribution and absolute dispositional and situational attribution are shown in Figures 3 and 4, respectively. Taken together these results provide strong confirmation for Hypothesis 3.

Attribution of Mental Illness-Mental Health (AMI-AMH)

The score on this measure was mean rating on a 15-point Likert-type scale ranging from "superior mental health" to "mental illness." Higher scores indicated increasing attribution of mental illness.

The analysis of variance performed on this measure is presented in Table 4. There was no main effect for Order ($p > .05$), but there was a first-order interaction of this variable with Valence, $F(1, 144) = 71.42$, $p < .05$. This effect was the result of a tendency for more AMI to be made for negative actions (means = 9.87 vs. 10.00 for orders 1
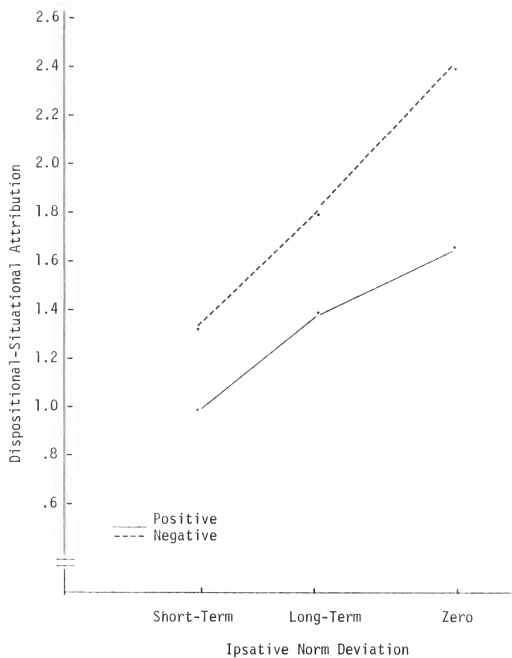
Figure 3. Mean Dispositional-Situational Attribution as a Function of Valence and Ipsative Norm Deviation.
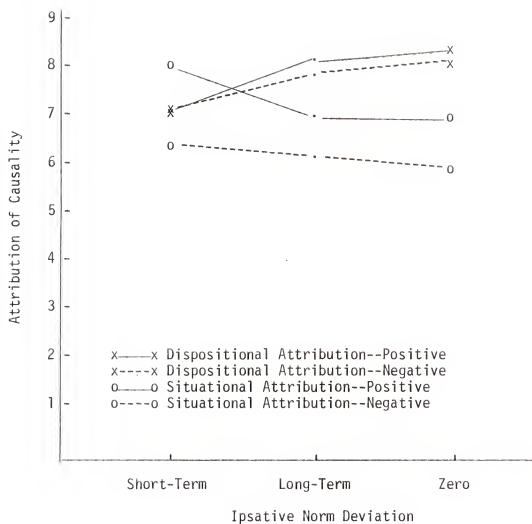
Figure 4.   Mean Attribution of Causality as a Function of Valence and
             Ipsative Norm Deviation.

TABLE 4

SUMMARY OF ANALYSIS OF VARIANCE FOR ATTRIBUTION OF
MENTAL ILLNESS-MENTAL HEALTH

Source	df	MS	F
Between Subjects:			
Ipsative Norm Deviation (C)	2	2.40	.24
Order (D)	1	20.26	2.05
C x D	2	4.94	.50
Error	144	9.86	
Total Between Ss	149		
Within Subjects:			
Statistical Norm Deviation (A)	2	240.12	113.23**
A x C	4	1.60	.73
A x D	2	5.24	2.47
A x C x D	4	3.26	.82
Error	288	2.12	
Valence (B)	1	12,592.57	694.32**
B x C	2	165.77	9.14*
B x D	1	71.42	3.94
B x C x D	2	10.04	.55
Error	144		
A x B	2	1,045.50	582.22**
A x B x C	4	6.73	3.75*
A x B x D	2	4.27	2.38
A x B x C x D	4	2.77	1.54
Error	288	1.80	
Total Within Ss	750		
Total for Study	899		

*p < .005
**p < .001

and 2, respectively) and more AMH to be made for positive actions
(means = 6.41 vs. 5.98 for orders 1 and 2, respectively) in the
second order of stimulus presentation. This difference reached
significance only in the negative valence condition ($\underline{p}$ <.05).

Among the experimental variables main effects emerged for
Statistical Norm Deviation and Valence; there was no main effect for
Ipsative Norm Deviation ($\underline{p}$ >.05). Two first-order and one second-
order interactions were also present: Valence x Ipsative Norm
Deviation, Statistical Norm Deviation x Valence, and Statistical Norm
Deviation x Valence x Ipsative Norm Deviation. There was no inter-
action effect for Statistical Norm Deviation x Ipsative Norm Deviation
($\underline{p}$ >.05). In the following paragraphs these results will be con-
sidered in detail and related to the hypotheses.

Hypothesis 4. Significantly greater mental illness will be
attributed to agents whose actions are characterized by negative
than positive valence.

As shown in Table 4, the main effect for Valence was highly
significant, $\underline{F}$(1, 144) = 694.32, $\underline{p}$ >.001. Comparison of means revealed
that greater AMI was made for negative than positive conditions (means =
9.93 vs. 6.19 for negative and positive actions, respectively). As
shown in Table 5, this effect was present at all statistical norm
deviation-ipsative norm deviation levels. These results strongly
support Hypothesis 4.

Hypotheses 5 and 6 concern the effect of the interaction of
Valence and Statistical Norm Deviation on AMI-AMH. Taken together
they imply that AMI is, for negative actions, an increasing function
and for positive actions, a decreasing function of level of Statistical

TABLE 5

MEAN ATTRIBUTION OF MENTAL ILLNESS-MENTAL HEALTH AS A
FUNCTION OF VALENCE, STATISTICAL AND
IPSATIVE NORM DEVIATION

Condition			Valence			
		Negative			Positive	
			Ipsative Norm Deviation			
	Short-Term	Long-Term	Zero	Short-Term	Long-Term	Zero
Statistical Norm Deviation:						
Zero	8.18^f	8.90^e	9.14^{de}	7.23^g	6.58^h	6.38^h
Moderate	9.34^d	9.69^c	9.90^c	6.38^h	5.98^i	6.08^i
High	10.90^b	11.58^a	11.79^a	6.07^i	5.72^j	5.35^k

Note: Higher scores indicate an increase in attribution of mental illness.
Lower scores, an increase in mental health. Means not sharing at
least one superscript differ by at least $p < .05$ as determined by the
Duncan's multiple-range test.

Norm Deviation. As Table 4 reveals, a significant Statistical Norm
Deviation x Valence interaction was present, $F(2, 288) = 582.22$,
$p < .001$. Means involved in this interaction are presented in Table 6.
Each hypothesis will be stated singly and the supporting evidence will
be examined.

Hypothesis 5. For negative valence significantly greater attribution
of mental illness will be made to agents whose actions increasingly
deviate from the statistical norm.

Inspection of Table 6 reveals that for negative valence there was a
significant increase in AMI with each increase in level of statistical
norm deviation (high, moderate, zero). As shown in Table 4, this result
was unaltered by level of ipsative norm deviation. These findings lend
strong support to Hypothesis 5.

Hypothesis 6. For positive valence significantly greater attribution
of mental health will be made to agents whose actions increasingly
deviate from the statistical norm.

Returning to Table 6, it can be seen that for positive actions
higher levels of statistical norm deviation elicited increasingly
greater attribution of mental health. Comparison of relevant cells in
the Statistical Norm Deviation x Valence x Ipsative Norm Deviation
interaction (Table 4) shows that this relationship achieved significance
at all levels of ipsative norm deviation. These effects are plotted
in Figure 5. This evidence constitutes strong support for Hypothesis 6.

Hypotheses 7 through 10 concern the effect of the interaction of
Valence and Ipsative Norm Deviation on AMI-AMH. The first two hypotheses
were derived from the consistency information principle in attribution
theory. The last two were concerned with possible differential effects

TABLE 6

MEAN ATTRIBUTION OF MENTAL ILLNESS-MENTAL HEALTH AS A
FUNCTION OF STATISTICAL NORM DEVIATION AND VALENCE

Condition	Valence	
Statistical Norm Deviation	Negative	Positive
Zero Deviation	8.74^c	6.72^d
Moderate Deviation	9.63^b	6.15^e
High Deviation	11.43^a	5.71^f

Note: Higher scores indicate increasing attribution of mental illness, lower scores, increasing attribution of mental health. Means not sharing at least one superscript differ by at least $p < .05$ as determined by the Duncan's multiple-range test.

TABLE 7

MEAN ATTRIBUTION OF MENTAL ILLNESS-MENTAL HEALTH AS A FUNCTION
OF VALENCE AND IPSATIVE NORM DEVIATION

Condition	Valence	
Ipsative Norm Deviation	Negative	Positive
Short-Term Deviation	9.47^b	6.56^c
Long-Term Deviation	10.06^a	6.09^{cd}
Zero Deviation	10.27^a	5.93^c

Note: Higher scores indicate increasing attribution of mental illness, lower scores, increasing attribution of mental health. Means not sharing at least one superscript differ by at least $p < .05$ as determined by the Duncan's multiple-range test.

of the intermediate level of ipsative norm deviation on AMI-AMH as a
function of valence. As shown in Table 4, there was a significant
Valence x Ipsative Norm Deviation interaction, $\underline{F}(2, 144) = 9.14$,
$\underline{p} < .001$. The means for this interaction are presented in Table 7.

Hypothesis 7. For negative valence significantly greater
attribution of mental illness will be made to agents whose actions
are characterized by zero than short-term ipsative norm deviation.

Examination of the negative valence cells in Table 7 reveals that
there was significantly greater attribution of mental illness at the
level of zero ipsative norm deviation than the short-term deviation
level. This finding was reinforced by the results of the Statistical
Norm Deviation x Valence x Ipsative Norm Deviation interaction (Table 5).
As can be seen, there was significantly more AMI for zero than short-
term deviation conditions at all levels of statistical norm deviation.

Hypothesis 8. For positive valence significantly greater
attribution of mental health will be made to agents whose actions
are characterized by zero than short-term ipsative norm deviation.

Although not reflected in the Ipsative Norm Deviation x Valence
interaction, Table 7 reveals that at each separate level of statistical
norm deviation there was greater AMH made in zero than short-term
ipsative norm deviation cells. When combined with the evidence
regarding the previous hypotheses, these findings lend confirmation
to the prediction that high consistency (zero ipsative norm deviation)
will elicit greater AMI-AMH than low consistency (short-term ipsative
norm deviation).

Hypothesis 9. For negative valence significantly greater attribution
of mental illness will be made to agents whose actions are characterized
by long-term than zero ipsative norm deviation.

As can be seen in Table 7, the evidence does not support this hypothesis. Although the difference between means was nonsignificant ($p > .05$), there was a trend toward _less_ AMI for long-term than zero ipsative norm deviation. Examination of Table 5 reveals that the predicted difference failed to obtain not only at the level of high statistical norm deviation, but also at the lower levels where it was most expected to occur. Instead, at all levels of statistical norm deviation AMI elicited by long-term ipsative norm deviation was intermediate to that elicited by short-term and zero deviation levels, significantly different from the former but not the latter ($p > .05$). Based on this evidence, Hypothesis 9 must be rejected.

Hypothesis 10. For positive valence signficantly greater attribution of mental health will be made to agents whose actions are characterized by zero than long-term ipsative norm deviation.

Examination of Table 7 reveals that there was no significant difference between long-term and zero deviation conditions ($p > .05$). However, as a result of the Statistical Norm Deviation x Valence x Ipsative Norm Deviation interaction, $F(4, 288) = 3.75$, $p < .005$, this finding must be qualified. Inspection of Table 5 shows that at the level of high statistical norm deviation but not at the lower levels there was significantly greater AMH for zero than long-term ipsative norm deviation. The effect of this second-order interaction is shown in Figure 5. As can be seen, at the levels of zero and moderate statistical norm deviation, attribution elicited by long-term ipsative norm deviation was intermediate to short-term and zero ipsative norm deviation. As was the case for negative valence, long-term deviation was significantly different from short-term but not from zero ipsative
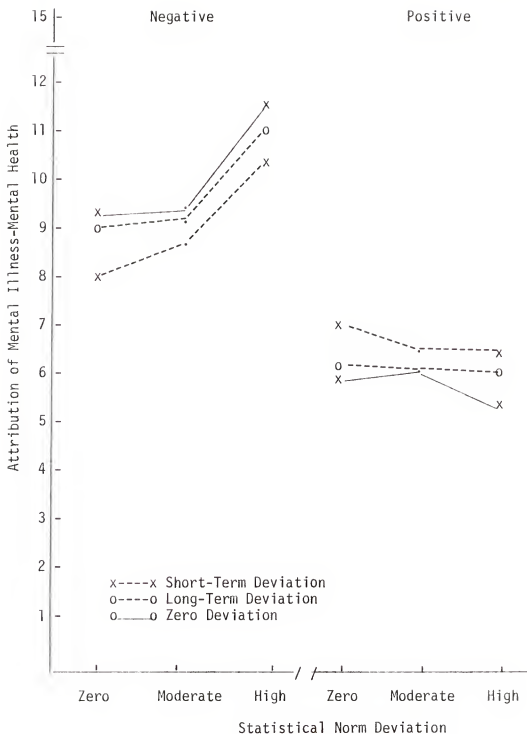
Figure 5. Mean Attribution of Mental Illness-Mental Health as a Function of Valence, Statistical and Ipsative Norm Deviation.

norm deviation conditions. However, in the positive valence-high
statistical norm deviation conditions, long-term ipsative norm deviation
elicited significantly more AMH than short-term deviation and signifi-
cantly less AMH than zero deviation. Therefore support for Hypothesis
10 was restricted to the high statistical norm deviation condition.

Confidence in Attribution of Mental Illness-Mental Health

The score for attributional confidence was mean rating on a 9-point
scale. The scale ranged from "extremely" to "not at all" confident
with lower scores reflecting greater confidence.

The results of the analysis of variance performed on this measure
are presented in Table 8. There were no reliable differences between
scores for the two orders of stimulus presentation, so this measure
was excluded from further analysis. Among the experimental variables
the main effects of Statistical Norm Deviation and Valence were
statistically significant, but there was no main effect for Ipsative
Norm Deviation ($p > .05$). The following interactions had F-ratios
that achieved an acceptable level of significance: Statistical Norm
Deviation x Ipsative Norm Deviation, Valence x Ipsative Norm Deviation,
Statistical Norm Deviation x Valence, and Statistical Norm Deviation
x Valence x Ipsative Norm Deviation. In the following paragraphs these
effects will be considered in detail and related to the hypotheses.

Hypothesis 11. For negative and positive valence there will be
significantly greater confidence in attribution of mental illness-
mental health for attribution made to agents whose actions are
characterized by zero and high deviation from the statistical norm
than those characterized by moderate deviation.

TABLE 8

SUMMARY OF ANALYSIS OF VARIANCE FOR CONFIDENCE IN
ATTRIBUTION OF MENTAL ILLNESS-MENTAL HEALTH

Source	df	MS	F
Between Subjects:			
Ipsative Norm Deviation (C)	2	95.05	2.26
Order (D)	1	7.26	.17
C x D	2	.57	.99
Error	144	42.06	
Total Between Ss	149		
Within Subjects:			
Statistical Norm Deviation (A)	2	47.89	25.04**
A x C	4	5.93	3.10*
A x D	2	.46	.24
A x C x D	4	1.04	.54
Error	288	1.92	
Valence (B)	1	59.73	19.76**
B x C	2	11.81	3.91*
B x D	1	.06	.02
B x C x D	2	.11	.04
Error	144	3.02	
A x B	2	31.88	23.59**
A x B x C	4	11.87	8.78**
A x B x D	2	2.14	1.58
A x B x C x D	4	.32	.06
Error	288	1.35	
Total Within Ss	750		
Total for Study	899		

*p < .05
**p < .001

An examination of Table 8 reveals that a significant main effect for Statistical Norm Deviation did emerge, $F(2, 288) = 25.04$, $p < .001$. Means for zero, high, and moderate levels of statistical norm deviation were 3.54, 3.49, and 3.86, respectively. As predicted, there was significantly greater ($p < .05$) attributional confidence for zero and high than moderate levels of statistical norm deviation. The difference between zero and high levels was not significant ($p > .05$).

In addition to the main effect this variable was involved in two first-order interactions: Statistical Norm Deviation x Valence, $F(2, 288) = 23.59$, $p < .001$, and Statistical Norm Deviation x Ipsative Norm Deviation, $F(4, 288) = 3.10$, $p < .05$. Means for these effects are presented in Tables 9 and 10. As can be seen in Table 9, the Statistical Norm Deviation x Valence interaction indicates that the significantly greater confidence in AMI-AMH for the zero and high than the moderate levels of statistical norm deviation was limited to the negative level of valence. At the level of positive valence there was significantly greater confidence for zero than moderate statistical norm deviation but there was no difference between high and moderate levels.

Examination of the means involved in the Statistical Norm Deviation x Ipsative Norm Deviation interaction (Table 10) indicates that only at the long-term and zero levels of ipsative norm deviation was there greater attributional confidence for zero and high statistical norm deviation than moderate deviation. At the short-term ipsative norm deviation level there was significantly greater confidence for the condition of zero but not high statistical norm deviation than for the moderate deviation condition.

TABLE 9

MEAN CONFIDENCE IN ATTRIBUTION OF MENTAL ILLNESS-MENTAL
HEALTH AS A FUNCTION OF STATISTICAL NORM
DEVIATION AND VALENCE

Condition	Valence	
Statistical Norm Deviation	Negative	Positive
Zero Deviation	3.72^b	3.35^e
Moderate Deviation	4.12^a	3.60^{bc}
High Deviation	3.44^{de}	3.55^{cd}

Note: Lower scores indicate increasing confidence in attribution of
mental illness-mental health. Means not sharing at least one
superscript differ by at least $p < .05$ as determined by the
Duncan's multiple-range test.

TABLE 10

MEAN CONFIDENCE IN ATTRIBUTION OF MENTAL ILLNESS-MENTAL
HEALTH AS A FUNCTION OF STATISTICAL AND
IPSATIVE NORM DEVIATION

Condition	Ipsative Norm Deviation		
Statistical Norm Deviation	Short-Term	Long-Term	Zero
Zero Deviation	3.59^c	3.78^{bc}	3.24^d
Moderate Deviation	3.96^{ab}	4.02^a	3.60^c
High Deviation	3.81^b	3.60^c	3.08^d

Note: Lower scores indicate increasing confidence in attribution of
mental illness-mental health. Means not sharing at least one
superscript differ by at least $p < .05$ as determined by the
Duncan's multiple-range test.

However, these first-order interactions must be viewed in the context of a significant Statistical Norm Deviation x Valence x Ipsative Norm Deviation interaction, $\underline{F}(4, 288) = 8.78$, $\underline{p} < .001$. Table 11 reveals that the level of ipsative norm deviation at which support for Hypothesis 11 occurred differed as a function of Valence. In the negative valence condition there was, as predicted, significantly greater confidence in AMI-AMH for levels of zero and high statistical norm deviation than for moderate deviation in both short- and long-term ipsative norm deviation conditions (Figure 6). However, in the zero ipsative norm deviation condition, although there was significantly more attributional confidence for high than moderate levels of statistical norm deviation, the difference between zero and moderate levels failed to achieve significance ($\underline{p} > .05$). In contrast, in the positive valence condition the predicted difference failed to occur at either short- or long-term levels of ipsative norm deviation. Only at the level of zero ipsative norm deviation was there the expected greater attributional confidence for zero and high than moderate statistical norm deviation treatments. Therefore support for Hypothesis 11 was confined to the short- and long-term ipsative norm deviation conditions for negative actions and to the zero ipsative norm deviation condition for positive actions.

Hypothesis 12. There will be significantly greater confidence in attribution of mental illness-mental health for attributions made to agents whose actions are negative than to those whose actions are positive.

Table 8 reveals that there was a significant main effect for Valence, $\underline{F}(1, 144) = 19.76$, $\underline{p} < .001$. However, the difference was

TABLE 11

MEAN CONFIDENCE IN ATTRIBUTION OF MENTAL ILLNESS-MENTAL
HEALTH AS A FUNCTION OF VALENCE, STATISTICAL AND
IPSATIVE NORM DEVIATION

Condition	Valence					
	Negative			Positive		
	Ipsative Norm Deviation					
	Short-Term	Long-Term	Zero	Short-Term	Long-Term	Zero
Statistical Norm Deviation:						
Zero	3.48^{gh}	4.01^{bc}	3.69^{defg}	3.71^{defg}	3.56^{efgh}	2.79^{j}
Moderate	4.18^{ab}	4.37^{a}	3.81^{cde}	3.75^{def}	3.67^{defg}	3.39^{gh}
High	3.77^{cde}	3.49^{fgh}	3.06^{i}	3.85^{cd}	3.70^{defg}	3.10^{i}

Note: Lower scores indicate increasing confidence in attribution of mental illness-mental health. Means not sharing at least one superscript differ by at least $p < .05$ as determined by the Duncan's multiple-range test.
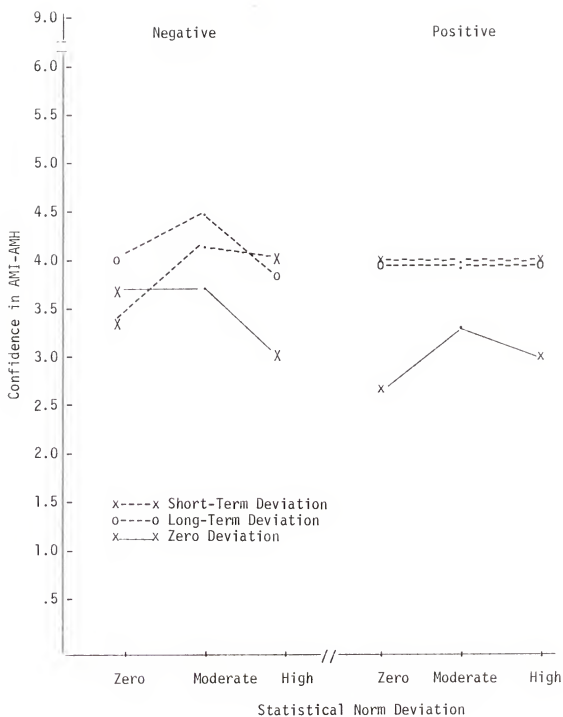
Figure 6. Mean Confidence in Attribution of Mental Illness-Mental Health Across Levels of Statistical Norm Deviation for Valence and Ipsative Norm Deviation.

in the direction opposite from that which was predicted (means = 3.76 vs. 3.50 for negative and positive actions, respectively).

In addition to the main effect, Valence was also involved in first-order interactions with Statistical Norm Deviation, $F(2, 288) = 23.59$, $p < .001$, and Ipsative Norm Deviation, $F(2, 144) = 3.91$, $p < .05$. As shown in Table 9, the Statistical Norm Deviation x Valence interaction was the result of there having been significantly greater attributional confidence expressed in positive than negative valence treatments at both the levels of zero and moderate but not high statistical norm deviation.

Inspection of the cells involved in the Valence x Ipsative Norm effect (Table 12) reveals that the greater confidence for positive than negative valence conditions was restricted to the levels of long-term and zero ipsative norm deviation. The difference between means in the short-term ipsative norm deviation condition, although in the opposite direction, failed to reach significance.

The results of both the Statistical Norm Deviation x Valence and the Valence x Ipsative Norm Deviation interactions must be qualified in light of the presence of the Statistical Norm Deviation x Valence x Ipsative Norm Deviation interaction, $F(4, 288) = 8.78$, $p < .001$. As shown in Figure 7, the difference in attributional confidence between positive and negative treatments was limited for all levels of ipsative norm deviation to the zero and moderate statistical norm deviation conditions. At the level of zero statistical norm deviation there was more confidence in AMI-AMH for positive than negative actions in the long-term and zero ipsative norm deviation cells. In the short-term deviation cell there was a trend toward

TABLE 12

MEAN CONFIDENCE IN ATTRIBUTION OF MENTAL ILLNESS-MENTAL
HEALTH AS A FUNCTION OF VALENCE AND IPSATIVE
NORM DEVIATION

Condition	Valence	
Ipsative Norm Deviation	Negative	Positive
Short-Term Deviation	3.81^{ab}	3.77^{ab}
Long-Term Deviation	3.95^{a}	3.64^{bc}
Zero Deviation	3.52^{c}	3.09^{d}

Note: Lower scores indicate increasing confidence in attribution of
mental illness-mental health. Means not sharing at least one
superscript differ by at least $p < .05$ as determined by the
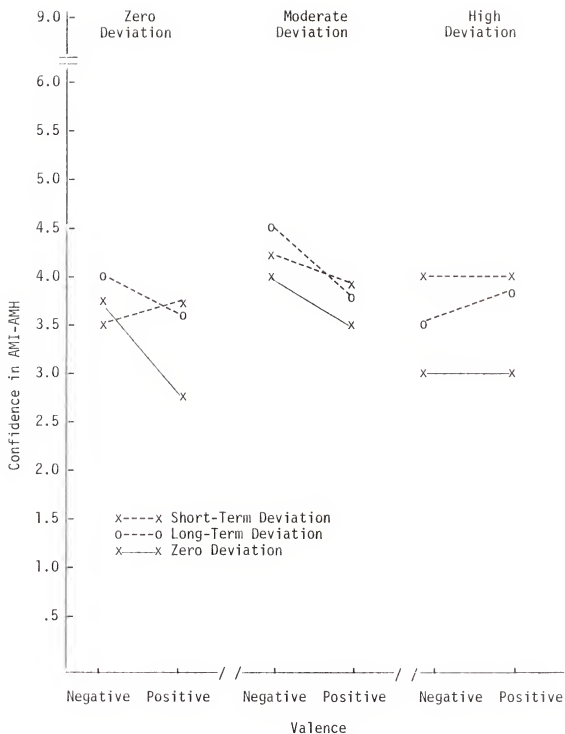Duncan's multiple-range test.

Figure 7. Mean Confidence in Attribution of Mental Illness-Mental
Health Across Levels of Valence for Statistical and
Ipsative Norm Deviation.

greater confidence for negative than positive actions, although this difference failed to achieve significance ($p > .05$). At the level of moderate statistical norm deviation there was significantly greater attributional confidence for positive than negative valence at all levels of ipsative norm deviation. The weight of this evidence necessitates a rejection of Hypothesis 12.

The following three hypotheses concern the effect of Ipsative Norm Deviation on attributional confidence and, taken together, predict an interaction between Ipsative Norm Deviation and Valence. As shown in Table 8, there was no overall effect for Ipsative Norm Deviation ($p > .05$) but a Valence x Ipsative Norm Deviation effect did emerge, $F(2, 144) = 11.81$, $p < .05$. In the following paragraphs the hypotheses will be stated singly and followed by consideration of the supporting evidence.

Hypothesis 13. For both negative and positive actions there will be significantly greater confidence in attribution of mental illness-mental health for attributions made to agents whose actions are characterized by zero than short-term ipsative norm deviation.

Means relevant to this comparison are presented in Table 12. As can be seen, there was significantly greater attributional confidence for zero than short-term ipsative norm deviation conditions at both levels of valence. These results were reinforced by the effects of the Statistical Norm Deviation x Valence x Ipsative Norm Deviation interaction, $F(4, 288) = 8.78$, $p < .001$. Examination of Table 11 reveals that in the positive valence treatment this effect was maintained across all levels of statistical norm deviation. In the negative valence treatment, there was greater confidence in

AMI-AMH for zero than short-term ipsative norm deviation at moderate and high levels of statistical norm deviation, but a trend in this direction failed to reach significance at the zero statistical norm deviation level ($p > .05$). Taken together, these results lend support to Hypothesis 13.

Hypothesis 14. For negative actions there will be significantly greater confidence in attribution of mental illness-mental health for attributions made to agents whose actions are characterized by short- than long-term ipsative norm deviation.

As shown in Table 12, although there was slightly greater confidence expressed in AMI-AMH for short- than long-term ipsative norm deviation, the difference between means failed to reach significance ($p > .05$). However, results of the Statistical Norm Deviation x Valence x Ipsative Norm Deviation interaction (Table 11) reveal that the predicted effect was conditional upon level of statistical norm deviation. Examination of the cells involved in the interaction shows that there was significantly more attributional confidence for short- than long-term ipsative norm deviation at the level of zero statistical norm deviation and a nonsignificant trend in that direction at the moderate deviation level. However, contrary to prediction, at the level of high statistical norm deviation there was greater attributional confidence for long- than short-term ipsative norm deviation. Therefore support for Hypothesis 14 was restricted to the lowest level of statistical norm deviation.

Hypothesis 15. For positive actions there will be significantly greater confidence in attribution of mental illness-mental health for attributions made to agents whose actions are characterized by long- than short-term ipsative norm deviation.

Inspection of Table 12 reveals that the difference in ratings of confidence for long- and short-term ipsative norm deviation in the positive valence treatement, although in the predicted direction, failed to attain significance ($p > .05$). This finding was unaltered by the Statistical Norm Deviation x Valence x Ipsative Norm Deviation interaction, as can be seen in Table 11. Therefore Hypothesis 15 must be rejected.

CHAPTER IV

DISCUSSION

In discussing the results of the experiment, the investigator
will first consider the effects of statistical and ipsative norm
deviation and valence on relative dispositional-situational attribution
and this will be followed by an examination of the effects of these
variables on attribution of mental illness-mental health and
attributional confidence. At intervals throughout the discussion the
relationship between the dependent variables will be examined. The
discussion will conclude with a statement of possible limitations
of the study and suggestions for future research.

Dispositional-Situational Attribution

With two noteworthy exceptions, the results regarding the effects
of the informational variables on relative dispositional-situational
attribution are in accord with the predictions derived from attribution
theory. As an agent's actions increase in statistical norm deviation
(become less consensual) they are perceived as being increasingly
more reflective of dispositional properties of the agent than pro-
perties of the situation. This effect is operative, however, only
for actions of negative valence, for which there is both an increase
in absolute dispositional attribution and a sharp decrease in absolute
situational attribution. In the case of positive valence actions,
dispositional relative to situational attribution does not increase
with increasing levels of statistical norm deviation. Although there

is increasing absolute dispositional attribution, the situational properties also become more salient. The resulting increase in absolute situational attribution serves to counterbalance increases in dispositional attribution. It seems likely that because the demands for normative positive actions are so pervasive, individuals become more habituated to their presence than to the presence of stimuli inducing nonnormative positive actions. The findings of no increase in dispositional relative to situational attribution at higher levels of statistical norm deviation appears to contradict past studies (Orvis et al., 1975; Feldman et al., 1976; Hansen & Lower, 1976). However, in these studies valence was not manipulated and the actions employed seem to have been essentially neutral ones. Although more research is needed, the present study suggests that the effectiveness of consensus information in eliciting dispositional attribution may not generalize to positive actions.

The second point at which the present results appear to be in conflict with the body of attribution research is the finding that when actions were statistically normative (highly consensual), there was no greater dispositional relative to situational attribution for negative than positive behavior. Past research (Kanouse & Hanson, 1972; Kelly, 1976) has generally discovered considerably more dispositional attribution for the former. The interpretation of this phenomenon has generally been that since the occurrence of negative actions helps eliminate the possibility of societal pressures as the origin of causality, they are more informative than positive actions (Jones & Davis, 1965; Shaw, 1968; Kanouse & Hanson, 1972). At levels of moderate and high statistical norm deviation in the present study

there was support for both the past findings and their interpretation, as the relatively greater dispositional than situational attribution for negative than positive actions was the result of low absolute situational attribution for negative actions and high absolute situational attribution for positive actions. However, these results did not extend to actions that were statistically normative; there was no greater absolute situational attribution for negative than positive valence. Negative actions were thus no more informative about the origin of causality than positive actions. Since positive behavior is generally more normative than negative behavior, the negativity effect obtained in past studies was probably a result of less absolute situational attribution for the nonnormative negative than the normative positive behaviors. The same effect could also obtain in the rarer case in which nonnormative _positive_ actions elicited greater absolute situational attribution than normative negative actions. In the present study, when both positive and negative behaviors were nonnormative, the two effects combined to intensify the phenomenon. Therefore, although perhaps of more theoretical than practical significance, the negativity effect on dispositional relative to situational attribution appears to be confined to situations in which behaviors at one or both levels of valence are not highly consensual.

This finding of no differential dispositional relative to situational attribution for negative and positive actions of high consensus complements the discovery by Taylor and Koivumaki (1976) of a positivity effect on dispositional attribution when the agent was known by the perceiver. The authors interpret their results in

terms of the motivational bias inherent in being acquainted with the stimulus person. If it can be assumed that the actions employed by the investigators were normative ones, then the effect of the bias could be expected to be quite strong because at this level the information variables are uncompelling. Conversely, one would anticipate motivational factors having their weakest effects for the levels at which the information variables are most powerful.

Finally, it is evident that the results of the effect of ipsative norm deviation on dispositional-situational attribution are in harmony with the predictions derived from the consistency principle of attribution theory. As the agent's behavior became increasingly more ipsatively normative (higher in consistency) his actions were perceived as originating increasingly more from dispositional properties of the agent than properties of the situation. This effect occurred regardless of statistical deviance or valence of the action, although the effect was stronger for negative than positive actions. As indicated by the range of mean scores across levels of ipsative norm deviation, this variable was a more powerful determinant of relative dispositional-situational attribution than either statistical norm deviation or valence. These results reinforce the findings of McArthur (1972) and Orvis, Cunningham, and Kelley (1975) that consistency information has greater effect than consensus on personal dispositional attribution.

The effects of the information variables on dispositional-situational attribution were, with the above mentioned exceptions, additive. Greatest dispositional relative to situational attribution was made to the agent whose actions were highly deviant statistically,

nondeviant ipsatively, and of negative valence. The discussion will now turn to attribution of mental illness-mental health where the effects of the information variables were expected to be interactive.

Attribution of Mental Illness-Mental Health

As anticipated, the variable that had the most striking effect on attribution of mental health-mental illness was valence. There was no AMI made to the agent whose actions were not negative; and regardless of level of statistical or ipsative norm deviation, the individual who engaged in negative behavior was perceived as being less healthy than the individual whose behavior was positive. Thus in the present study, whereas the occurrence of negative actions served only to enhance dispositional attribution, it was the sine qua non for making an attribution of mental illness. This finding is in accord with those of the recognition of mental illness literature (Phillips, 1964; Dohrenwend & Chin-Shong, 1967). In addition it extends the observations by Hartman (1960), Hartung (1965), Sarbin and Mancuso (1970), Szasz (1960) and others that mental health professionals equate the concepts of "healthy" and "unhealthy" with norms of propriety to a population of laypersons as well.

It is also apparent from the results of the present study that, as the agent's actions deviate increasingly from the statistical norm, there was a corresponding increase in extremity of mental illness-mental health attributions. The less consensual the behavior, the less attribution of mental health made to agents engaging in negative behavior and the more attribution of mental health made to agents whose actions were positive. Although consensus in combination with valence proved to be an effective determinant of perceptions of

both mental illness and mental health, there was greater correspondence between statistically deviant negative behavior and the ascription of mental illness than statistically deviant positive behavior and the ascription of superior mental health. It is possible that this result is a function of the somewhat smaller range of statistical norm deviation for positive actions as revealed in the postexperimental questionnaire. However, the fact that the effect was present not only in the comparison between moderate and high statistical norm deviation but also in the comparison between zero and moderate deviation, at which point the range was actually greater for positive than negative actions, argues against this interpretation. The previously discussed finding of a differential effect on dispositional relative to situational attribution for positive and negative actions appears to provide a more valid interpretation. It will be recalled that decreases in consensuality resulted in decreased absolute situational attribution for negative but not positive behavior. Since social demands and situational factors cannot be excluded as readily in the case of positive actions, the lesser effectiveness of statistical norm deviation in eliciting attribution of superior mental health than mental illness would seem to be a reflection of its lesser ability to elicit dispositional attributions in general.

The present finding that, as the agent's behavior becomes increasingly more deviant statistically there was an increase in attribution of _specific_ dispositions (mental illness or mental health), lends additional support to tne concept of consensus information in attribution theory. The finding of the interaction effect of statistical norm deviation and valence also reveals that behavioral deviancy,

although a necessary condition, is not sufficient in itself to elicit attribution of mental illness.

In concluding the discussion of the effect of statistical norm deviation, it is informative to compare the effectiveness of statistical and ipsative norm deviation on attribution of mental illness-mental health and dispositional attribution. Whereas, as previously indicated, consistency information was the more potent determinant of dispositional relative to situational attribution, consensus information played the more dominant role in AMI-AMH, although its impact on actions of positive valence was weaker than on negative valence actions. This point will be elaborated in the following paragraphs.

Turning to the effects of ipsative norm deviation on attribution of mental illness-mental health, it is clear that the results are in accord with the predictions derived from the consistency principle of attribution theory. For negative actions there was less mental health attribution and for positive actions, more mental health attribution made to agents whose behavior was of high consistency (zero ipsative norm deviation) than to those whose behavior was of low consistency (short-term ipsative norm deviation). This relationship existed at all levels of statistical norm deviation. The results further revealed that the consistency variable was of differential importance for attributions made to negative and positive actions. For both types of behavior the presence of high consistency was insufficient to elicit attributions of absolute mental illness or mental health, although it increased attributions in the expected directions. Furthermore, for negative behavior high consistency was not a necessary condition for an attribution of absolute mental illness. It was

sufficient that the action be highly deviant statistically for this
disposition to be ascribed. However, when the consensus information
was weaker (moderate statistical norm deviation) high consistency
resulted in an attribution of borderline mental illness if the
ipsatively nondeviant (high consistency) behavior was negative. In
contrast, in the case of positive behavior, even when the actions
were highly deviant statistically, it was essential that the actions
by highly consistent to warrant an attribution of superior mental
health. The greater impact of consistency information for attributions
made to positive than negative behavior is also manifested in the
finding that for negative behavior, low consistency actions at a
statistically more deviant level elicited greater attribution of mental
illness (or less attribution of mental health) than high consistency
actions at a less deviant level. For positive actions there was no
difference in attribution of mental health between the low consistency-
higher statistical norm deviation condition and the high consistency-
lower deviation condition. In addition, the importance of both high
consistency and high statistical norm deviation for the attribution
of absolute mental health (superior mental health) is evidenced in the
finding that only for positive actions highly deviant statistically
was there greater attribution of mental health for the zero ipsative
norm deviation (high consistency) than the long-term deviation
("moderate" consistency) condition. In other words, for positive
actions, the highest level of one norm variable is capable of
eliciting attribution of superior mental health only in the presence
of the highest level of the other norm variable. This result is
likely a case of the more general effect of the perceiver's greater

reliance on one kind of norm information when the other is ambiguous, that is, when it suggests the possibility of either of two different attributions. Because consensus has a weaker effect on positive than negative actions, attributional ambiguity is manifested only at the level of high statistical norm deviation where the possibility of superior mental health is first suggested. This interpretation is in harmony with the finding that for negative actions that are moderately deviant statistically, where the possibility of a mental illness attribution arises, the role of consistency information in the attribution of mental illness increases in importance.

In view of the fact that ipsative information does alter individuals' perceptions of the presence or absence of mental illness, it is hoped that this variable will receive greater attention in future research. Before concluding the discussion of the effect of behavioral consistency on attributions, the results regarding the effect of behavioral change on attribution of mental illness-mental health will be examined.

The evidence bearing on the differential effects of long-term and zero ipsative norm deviation on attributions made for positive and negative actions clearly were not in accord with prediction. It will be recalled that the hypotheses were derived from the idea of the use of the mental illness label as an explanatory concept. It was argued that when the agent demonstrated behavioral change in the direction of more negative actions, the perceiver would prefer to explain the new behavior by referring it to the superordinate dispositional construct of mental illness over evoking a trait opposite in direction from the original one. The "good" person would be

relabelled "mentally ill" rather than "bad." This argument was based
on the assumption of the perceiver's belief in the stability of
dispositions. Therefore, when the actions were not highly deviant
statistically, it was anticipated that there would be greater
attribution of mental illness for long-term than zero ipsative norm
deviation negative actions. In contrast, it was expected that there
would be less need to evoke a new dispositional concept when the
behavioral change was positive, as it could be referred to social
pressures and benefits. Thus it was anticipated that there would be
less attribution of mental health for long-term than zero ipsative
norm deviation positive actions. However, the results indicated that
for both negative and positive valence, attributions elicited by long-
term ipsative norm deviation were intermediate to short-term and zero
ipsative norm deviation, and with one exception were not significantly
different from the latter. It is uncertain whether the failure of
these predictions was a result of the hypotheses or the possible
ineffectiveness of the manipulation. That the behavior in the long-
term deviation conditions was perceived as being a relatively enduring
aspect of the agent is suggested both by the dispositional-situational
index evidence and the fact that attributions of mental health and
illness for these conditions were more similar to those made for
zero than short-term ipsative deviation conditions. It is less clear
that the element of behavioral change was perceived. There is the
possibility that a perceptual bias was introduced as a result of the
occurrence of the long-term deviation condition along side short-term
and zero ipsative deviation. Although there is no supporting evidence,
it is plausible that agents in the change condition were perceived as

sometimes engaging in the behavior rather than continuously engaging in it over a moderate period of time. Perhaps a more effective procedure, although unfortunately outside the scope of this study, would have been to introduce the agent's behavior, have the perceiver make causal attributions, and then introduce the behavioral change manipulation. Such a procedure would make the element of change more difficult to overlook, and would have the added advantage of being more similar to the circumstances surrounding the perceiver's experiencing of behavioral change in a non-experimental setting.

The problem of how the perceiver responds to changes in behavior has both theoretical (Mischel, 1967; Jones & Nisbett, 1972) and social significance. Thus it is hoped that future investigation will help clarify the findings of the present study on this issue.

The discussion will now turn to the perceivers' attributional confidence and the relationship of this measure to individuals' attributions of mental illness-mental health.

Confidence in Attribution of Mental Illness-Mental Health

It is evident from the number of interactions obtained that the effects of the information variables on attributional confidence were complex. In order to be understood, the results must be viewed within the framework of both the experimental variables themselves and the attributions these variables elicited. The general finding was that there was greatest confidence in attribution of mental illness-mental health in those conditions in which each level of statistical and ipsative norm deviation and valence suggested the probability of only one (and the same) attributional label. There

was considerably less confidence when one level of one of the infor-
mation variables indicated the possibility of either one of two
attributions (normal personality vs. mental illness in the case of
negative actions, and normal personality vs. superior mental health
in the case of positive behaviors). Attributional confidence decreased
even further when the accompanying level of a second information
variable heightened attributional ambiguity. These effects will
become apparent as the relevant hypotheses are discussed.

On the basis of ambiguity of information it was predicted that
there would be less confidence in attributions made to agents whose
behavior was moderately deviant statistically than those whose actions
were either statistically normative or highly deviant. Acceptance of
this hypothesis proved to be contingent upon level of ipsative norm
deviation, the specific level being determined by the valence of
the behavior. In the case of negative actions, the expected lesser
attributional confidence for moderately statistically deviant actions
was confined to short- and long-term ipsative norm deviation conditions
where the ambiguity inherent in the moderately statistically deviant
behavior was either unresolved or enhanced as a result of its being
inconsistent to some degree. When the agent's actions were ipsatively
normative, which served to simultaneously reduce the possibility of
the behavior having stemmed from normal personality in the case of
the moderately statistically deviant negative actions and increase
the possibility of it having stemmed from mental illness in the
case of statistically normative negative actions, there was no less
attributional confidence for the former than the latter. In contrast,
for positive actions, the possibility that the agent's actions were a

result of superior mental health did not arise until the behavior
demonstrated zero ipsative norm deviation (high consistency),
regardless of how statistically deviant the action was. Thus it was
only in the high consistency condition, at which point the degree
of statistical norm deviation became relevant, that there was greater
ambiguity and therefore less attributional confidence in the moderate
than the zero or high statistical norm deviation treatments. Although
unpredicted, these different results for negative and positive actions
are in harmony with attribution of mental illness-mental health
differences found for negative and positive valence. It will be
recalled that because of the lesser impact of consensus information
on attribution of superior mental health than mental illness, high
consistency was required to elicit attribution of superior mental
health but not mental illness. Thus for negative behavior the
ambiguity inherent in a moderate degree of statistical norm deviation
manifests itself mainly at the lower levels of consistency, while
for positive actions it is limited to the level of high ipsative
consistency.

The evidence regarding the effect of valence on attributional
confidence clearly did not conform to prediction. In fact there was
significantly greater certainty about attributions made for positive
than negative behavior. Examination of the conditions in which the
reversal occurred reveals that the effect was limited to those in
which attributions were made along some point in the normal
personality range. With the exception of the short-term ipsative
norm-zero statistical norm deviation cell, in which perceivers voiced
equal confidence in their attributions to agents whose actions were

negative and positive, there was more attributional certainty for positive than negative behavior in all conditions of zero and moderate statistical norm deviation. Thus if the action was statistically normative and occurred more than once or if it was moderately deviant statistically and occurred at all, the perceiver was more confident that it was indicative of normal personality when the behavior was positive than when negative. Of more theoretical interest is the finding that when attributions of mental illness-mental health made for positive and negative actions were approximately equally extreme, there was no significant difference in attributional confidence in the two valence conditions. That is, when the behavior was highly deviant statistically, the perceiver was no less confident in attributions made for positive than negative actions. Taken together with the evidence bearing on AMI-AMH, this finding suggests that although stronger information is demanded for attributions made for positive actions to elicit attributions as extreme as those made for negative actions, once they are made the perceiver feels equally confident about them.

The expectation derived from attribution theory that there would be greater attributional confidence for actions characterized by high than low consistency received support for both positive and negative behavior, when it was characterized by either moderate or high statistical norm deviation. When considered along side the previously discussed evidence, this finding indicates that in comparison to short-term ipsative deviation, no ipsative norm deviation led individuals to perceive greater dispositional relative to situational causality, make more extreme attributions of a specific disposition

(AMI-AMH), and express more confidence in the latter attributions.
The exception to this finding occurred when the action was negative
and statistically normative, where there was in evidence a trend in
the opposite direction from that predicted. Although when the high
consensus action was positive, there was greater confidence in
attributions of normal personality if the statistically normative
behavior was consistent with past actions than if it was temporarily
inconsistent, when the behavior was negative, there was _less_
certainty in the attribution of normal personality for ipsatively
normative than temporarily ipsatively deviant actions. Thus, while
perceivers were unwilling to attribute mental illness for statistically
normative negative actions at any level of ipsative consistency, as
it became more evident that the behavior was chronic, they became
less confident in their attribution of normal personality. In
contrast, when the statistically normative behavior was positive,
in the absence of information concerning negative actions engaged in
by the agent, perceivers were unwilling to attribute mental illness,
if the positive behavior occurred only once. However, when the
statistically normative action appeared to be dispositional in origin
(ipsatively consistent) they became more confident in their attributions
of normal personality.

The prediction that there would be less confidence in attribution
of mental illness-mental health made to agents whose negative actions
were characterized by long- than short-term ipsative norm deviation
was based on the previously discussed principle of information
ambiguity. In brief, it was argued that the possibility of a mental
illness attribution as opposed to an attribution of normal personality

would first arise when the agent engaged in the action with some degree of consistency. Thus, because of the greater number of possible attributions for long- than short-term ipsative norm deviation, the perceiver was expected to express less attributional certainty when the behavior was somewhat characteristic of the agent than when it was not at all characteristic of him.

The evidence was in accord with prediction when the ambiguity inherent in the long-term deviation condition was not diminished by information about the statistical deviance of the action. That is, when the agent's negative action was statistically normative and, to a lesser extent, moderately deviant, the perceiver indicated less confidence in attribution of mental illness-mental health for long- than short-term ipsative deviation. However, when the possibility of an attribution of normal personality was lessened as a result of the high statistical deviance of the behavior, each increment in ipsative norm consistency (short-term vs. long-term vs. zero ipsative deviation) resulted in an increase in attributional confidence. This result complements the previously discussed finding that when the behavior was negative, high statistical norm deviation was sufficient to elicit AMI without regard to level of consistency, but that increments in consistency augmented the amount of mental illness ascribed to the agent.

It will be recalled that the alternate hypothesis for positive actions was that there would be less attributional confidence when the agent's behavior was characterized by short- than long-term ipsative norm deviation. This was based on the assumption that the ambiguity inherent in negative actions that demonstrate long-term ipsative norm

deviation does not exist equally for long-term ipsatively deviant positive behavior. Since positive actions could readily be explained in terms of external pressures and rewards, it was expected that any increment in ipsative consistency would diminish suspicion and thereby increase one's confidence in the attribution of mental health. This was not entirely the case. Although perceivers were willing to attribute greater mental health for long-term ipsatively deviant behavior, they did not express significantly more confidence in attributions made for long- than short-term deviation. This finding would seem to have somewhat dismal implications about society's willingness to accept at face value the presence in the agent of any form of therapeutic change.

Before closing the discussion of attributional confidence, a few relevant observations are in order. It is interesting to note that although perceivers were maximally confident in their attributions of superior mental health for positive behavior and mental illness for negative behavior when the actions were characterized by high statistical and zero ipsative norm deviation (low consensus and high consistency, respectively), they expressed greatest overall attributional certainty when ascribing normal personality to agents whose behavior was characterized as being of positive valence and nondeviant statistically and ipsatively. Although the present study contains no information that aids in interpretation of this finding, it seems possible that this phenomenon is a result of the relationship between intention and motive for statistically normative and nonnormative behaviors. When observing human behavior, the perceiver is perhaps more likely to infer the presence of normative motives on the basis of the occurrence of a

normative intentional action than to infer nonnormative motives from
nonnormative actions. Thus from the perceiver's perspective, it is
more probable that the agent has a normative motive for the nonnormative
action than it is that he has a nonnormative motive for a normative
behavior. Assuming this to be the case, the perceiver has more con-
fidence that normative actions are indicative of the agent's normal
personality than that nonnormative actions are indicative of his
superior mental health or mental illness. When the actions are
nonnormative there is always the possibility that the agent acted on
the basis of some reasonable (i.e., normative) motive and so he is
more cautious in attributing causality. This question of the effect
of motive on attribution of mental illness-mental health appears to be
an important one and will be mentioned again in the section regarding
future research.

Finally, the results of attributional confidence taken together with
those of attribution of mental illness-mental health help clarify the
findings of past research that mental illness is ascribed by laypersons
only when the agent's behavior is highly deviant (Lemkau & Crocetti,
1962; Dohrenwend & Chin-Shong, 1967) and threatening to others (Phillips,
1964; Dohrenwend & Chin-Shong, 1967). In support of these results, the
evidence from the present study does indicate that absolute mental
illness is attributed only when the negative action is highly deviant
statistically (low in consensus). However, the AMI-AMH results also
reveal that perceivers attribute borderline mental illness in the event
that the agent's moderately deviant negative actions demonstrate at
least moderate ipsative consistency. Furthermore, the attributional
confidence findings indicate that when the negative action is ipsatively

normative and thus apparently of dispositional origin, perceivers are relatively less confident about their attributions of normal personality. These findings strongly suggest that the reluctance of laypersons to ascribe mental illness does not stem from a failure to perceive such a possibility. Instead, it appears that individuals delay attributing mental illness, perhaps because of the consequences implicit in assignment of the label, until they are relatively convinced of its appropriateness. This tendency can be expected to be in evidence to a much greater extent when perceivers are making attributions about individuals with whom they are acquainted.

CHAPTER V

CONCLUSIONS

The results indicate that dispositional-situational attribution is essentially an additive function and attribution of mental illness-mental health an interactive function of statistical and ipsative norm deviation (consensus and consistency) and behavioral valence. There is greater dispositional relative to situational attribution for negative than positive actions, for higher than lower levels of statistical norm deviation, and for lower than higher levels of ipsative norm deviation. For negative actions there is increasingly more dispositional relative to situational attribution with increasing statistical norm deviation and decreasing ipsative norm deviation. For positive actions there is an increase in dispositional relative to situational attribution as the behavior becomes more ipsatively normative, but not as it becomes more statistically deviant. The results indicate more dispositional relative to situational attribution for negative than positive actions when the behaviors deviate moderately or highly from the statistical norm. There is no difference in effect of valence when the action is statistically normative. The result of different effects of valence at different levels of statistical norm deviation is a function of increasing absolute situational attribution for positive actions and decreasing absolute situational attribution for negative actions as the behavior becomes more statistically deviant. Comparing the effects of ipsative and statistical norm deviation on

dispositional relative to situational attribution, ipsative norm deviation (consistency information) is the more powerful determinant.

The results of attribution of mental illness-mental health indicate that mental illness is only attributed when the agent's actions are negative. For negative behaviors AMI increases with increasing statistical norm deviation and decreasing ipsative norm deviation, although the latter effect is limited to the difference between the highest and lowest levels of consistency (zero deviation vs. short-term deviation). Compared to ipsative norm deviation, statistical norm deviation (consensus) is the more effective determinant of mental illness attribution; the latter when combined with negative valence is both a necessary and sufficient condition for AMI. When combined with negative actions, ipsative norm deviation proves insufficient to elicit AMI; moderate or high consistency (long-term or zero ipsative norm deviation), however, elicit borderline attribution of mental illness when either occurs in the presence of either moderate or high statistical norm deviation. Greatest AMI occurs when zero ipsative norm deviation is combined with highly statistically deviant negative behaviors.

Positive actions are viewed as being indicative of either normal personality or superior mental health, depending on level of statistical and ipsative norm deviation. Attribution of mental health increases with an increase in statistical norm deviation and a decrease in ipsative norm deviation, although the latter is true for the difference between long-term and zero ipsative norm deviation only when the behavior is highly deviant statistically. In the case of positive actions, neither consensus nor consistency is alone sufficient to

elicit an attribution of superior mental health. Only when the positive action is both highly statistically deviant and highly ipsatively normative does this attribution obtain. Since high consistency is more essential to reduce the possibility of situational causality for positive than negative actions, such information is essential for an attribution of superior mental health but not one of mental illness. In summary, statistical norm deviation (consensus) information is more important than ipsative norm (consistency) information in AMI-AMH; but when the behavior is positive, it is not sufficient in itself to evoke an attribution of superior mental health.

The results of confidence in attribution of mental illness-mental health are complex and no unqualified statement about the independent effects of the information variables can be made. The findings indicate that attributional confidence is a function of both the experimental variables and the attributional labels they elicit. For negative behaviors least certainty occurs at moderate levels of statistical and ipsative norm deviation, as the information is not sufficient to elicit absolute AMI but is sufficient to suggest its possibility. At these levels of consensus and consistency there is more confidence in attributions made to positive than negative actions. Individuals are thus more certain that positive behaviors are indicative of normal personality than are negative behaviors. When the action is negative and moderately or highly consistent (long-term or zero ipsative norm deviation), more confidence is expressed in attributions made at the level of high than zero statistical norm deviation. When the negative action is low in consistency (short-term ipsative norm

deviation), there is more attributional certainty when the behavior is statistically normative than when it is highly deviant statistically. These findings in combination with those of AMI-AMH indicate that (a) when the negative behavior has continued over a period of time, there is greater confidence in the attribution of mental illness for actions that are statistically highly deviant than in the attribution of normal personality for actions that are statistically normative, and (b) when the negative behavior has occurred only once, there is greater confidence in the attribution of normal personality for actions that are statistically normative than in the attribution of mental illness for actions that are statistically highly deviant.

For positive actions there is no difference in confidence in attribution of normal personality for any of the combinations of short- or long-term ipsative norm deviation with zero, moderate, and high levels of statistical norm deviation. These findings indicate that not only does it take both high statistical and zero ipsative norm deviation to elicit attribution of superior mental health, but also that when one or the other is absent, there is equal certainty that the action is indicative of normal personality. Among positive actions, although there is relatively great confidence in the attribution of superior mental health when the behavior is highly deviant statistically and nondeviant ipsatively, there is greater certainty in the attribution of normal personality when the behavior is nondeviant statistically and ipsatively.

Finally, when actions are highly deviant statistically and nondeviant ipsatively, there is no less confidence in attribution of superior mental health for positive behaviors than attribution of

mental illness for negative behaviors. Thus, although it initially takes more evidence to elicit attribution of superior mental health than mental illness, when the attribution is made, it is held with equally great conviction.

CHAPTER VI

LIMITATIONS AND SUGGESTIONS FOR FUTURE RESEARCH

The possible limitations of the present study center primarily around issues of generalizability of findings to other populations and techniques of measurement. In addition there is the question of replicability of results across settings in which motivational and other influences are more preeminent.

As a result of failure to obtain for the male sample a sufficient number of actions representing normative negative behaviors, the experiment was necessarily restricted to females. The question thus arises of whether the findings will extend to males. Although it concerns attribution of responsibility, there is at least one study in the attribution literature (Shaw, 1968) indicating that females are somewhat more responsive than males to differences in levels of experimental variables. It is possible that women, because of their socialization history, not only make finer discriminations among social and interpersonal behaviors but are also more predisposed to attribute mental illness (or less mental health) for negative actions at any particular level of statistical norm deviation. On the other hand, although less likely, they could conceivably be less willing to attribute superior mental health for positive actions. One study that has direct bearing on this issue is that of Underwood and Moore (1977). Using a sample that included both males and females, these investigators did not find a sex difference in attribution of mental

illness. There is some evidence in the recognition of mental illness literature (Lemkau & Crocetti, 1962; Sarbin & Mancuso, 1970) that individuals of less education are less inclined to apply the mental illness label. This poses the question of whether the present results are confined to this relatively well educated population of college students.

Another possible limitation which future research needs to address is whether the disposition of mental illness will be employed when it is not suggested by the technique of measurement. Although the present research indicates that individuals will systematically use the mental illness-mental health dimension when confronted with it, they might spontaneously employ a different dispositional attribution. This is particularly likely to be the case when the information variables elicit an attribution of normal personality. Since ascription of such a global trait is of little value in predicting how the majority of individuals will differentially behave, it is probable that a disposition that anticipates a narrower range of actions will be selected.

A third problem that awaits future research is the extent to which the effects of the information variables will hold up in the face of the numerous other stimuli present in a nonlaboratory setting. The experimental method necessarily directed attention to the variables of interest and drastically reduced extraneous stimuli. In a less controlled environment the presence of these factors could go unnoticed or their effects could be substantially reduced or eliminated. The only evidence bearing on this comes itself from an experimental setting but one in which the information variables were only indirectly

manipulated. Using the method of description of various clinical syndromes, the findings of past research (Dohrenwend & Chin-Shong, 1967; Lemkau & Crocetti, 1962) that greater mental illness is attributed to the "paranoid schizophrenic" suggest that two of the variables being pulled out of the case descriptions are statistical norm deviation and valence.

The stimuli that are expected to most seriously threaten the effectiveness of the information variables are motivational ones attendent to being acquainted with the agent. As mentioned, a positivity effect on dispositional attribution has been found (Taylor & Koivumaki, 1976) when the stimulus person is known to the perceiver. Since the attribution of mental illness has more far-reaching consequences than dispositional attribution, it is likely that defensive as well as cognitive perceptual biases will weaken the impact of statistical and ipsative norm deviation and valence on AMI when attributions pertain to family members. Such factors as guilt over one's possible causal role, financial dependence, unwillingness to accept the consequences of the attribution and other could all operate to overpower the variables explored in the present research. Thus the problem of motivational influence is likely to be particularly acute in the attribution of mental illness area.

In addition to the above, the present research findings suggest a number of possible directions of future research. One question that they pose is whether negative actions elicit attribution of mental illness or reduced mental health only when the behavior is interpersonal or does the finding extend to negative actions directed towards the agent's self (i.e., the self-defeating behavior that is

generally labelled "neurotic"). While professionals make diagnoses on actions of either direction, it is likely that the public is less inclined to apply the mental illness label to the latter. Future research on the effect of valence on AMI-AMH might manipulate this directionality variable.

A second area that needs clarification is the conditions under which the perceiver will attribute mental illness as an explanation for change in the agent's behavior. As earlier discussed, when behavior is in a direction opposite to that predicted by a previous dispositional attribution and continues over a period of time sufficient to rule out the possibility of temporary influences, a new dispositional attribution appears to be in order. Since the perceiver's belief in stable dispositions would seem to deter him from making a trait attribution contradicting the former one, a possible solution is to evoke the concept of mental illness which explains the preemption of the "normal" disposition. This is most likely to be the case when the new behavior is negative or otherwise disapproved by the perceiver. In order to investigate this possibility, the present research findings suggest that the manipulation should make explicit the presence of behavioral change to prevent the possibility that it is perceived as moderate consistency rather than high consistency over a moderate period of time.

Another avenue open to future research is the extension of the findings of the effects of the attribution variables on overt actions to verbal and emotional behaviors. It is in this area that the use of videotape would have a great advantage over the questionnaire method, although it makes manipulation of the time dimension more difficult.

Finally, and perhaps most importantly, if research in attribution of mental illness is to advance much beyond the finding that mental illness is attributed only to agents whose actions are negative, then it will need to focus on different motives impelling the behavior. Highly deviant negative actions appear to represent the exceptional case in which perceivers have difficulty "normalizing" the motive behind the action, thereby increasing the probability of a mental illness attribution. Since society places much emphasis on the importance of having rational explanations for one's behavior, individuals generally are adept at furnishing such explanations for the nonnormative as well as the normative actions of both themselves and others. This pervasive tendency reduces the possibility of getting absolute AMI for any but the most exceptional behaviors. Therefore a most profitable direction for future investigation is the manipulation of motives underlying deviant and nondeviant actions. The question of motive should also be informative in regard to the attribution of superior mental health since statement of motive would seem to offer a method of diminishing the high situational attribution suggested by highly deviant positive actions.

INSTRUCTIONS FOR PREEXPERIMENTAL QUESTIONNAIRE

The following task is the preliminary part of a psychological study. For this study it is necessary to know the perceived frequency of occurrence of a number of actions and whether those actions are positive or negative.

A list of the actions is attached to this page. On the second booklet given to you you will see a number of rating scales. The number given to each scale corresponds to the number of the action. That is, action 1 should be rated on the rating scale numbered 1, action 2 on scale 2, and so on.

The points on the rating scale correspond to the possible frequency of occurrence of each of the actions. The scale ranges from very high (75% or more), that is, the action is extremely common, most people would do it to very low (5% or less), only a very few people would do it, the action is very uncommon.

For each of the actions it is your task to check the point on the rating scale that you think indicates the percentage of people who would engage in the action. The following is an example:

Action: taking food to a person too ill to cook

```
            75% or  75-   50-    30-    20-   10-  5% or
            more    50%   30%    20%    10%   5%   less
very common____:_____:_____:__X__:_____:_____:_____:very uncommon

            __X__positive      _____negative      _____neutral
```

Now, if you believe that approximately 25% of the population would
do this action, you should place a check mark on the appropriate
line, as indicated in the example.

After specifying what you believe the frequency of occurrence
of the action to be, you should next indicate whether you perceive
the action to be positive or negative. By positive it is meant
that you favorably evaluate the action, you approve of it; and by
negative it is meant that you unfavorably evaluate the action, that
is, you disapprove of it.

Taking the example just given, if you approve of a person's
taking food to an ill person, you would check the space marked positive.
If you think the action is neither good nor bad, you should check the
space marked neutral.

The space which you check should be determined only by whether
you approve or disapprove the action, _not_ whether you would yourself
engage in the action. That is, you may judge the action positive even
if you wouldn't do it yourself or negative even if you would do it
yourself. For example, you might fib to avoid a social engagement and
yet still disapprove of the action. Therefore, you would check the
space indicating you regard the action as negative.

After rating action 1 in terms of its frequency of occurrence
and whether you think it negative or positive, you should go on to
the second action and follow the same procedure until you have
finished all of the actions.

Please read carefully each action before deciding how it should
be rated and be sure when you are rating the action that the scale you
are using corresponds to the number of the action in the action booklet.

That is, be sure action 1 is being rated on rating scale 1 and so on. This is _very_ important.

Before beginning the judging task be sure to record your name, age, sex, and student number on the first page of the rating scale booklet in the spaces provided.

Thank you for your help. It is essential for a forthcoming research project and is greatly appreciated.

APPENDIX B

EXPERIMENTAL ITEMS

	M Rating	Negative Label
Negative Valence		
No Statistical Norm Deviation		
1. Repeating unfavorable gossip about a colleague	5.66	100%
2. Intentionally saying something to hurt a friend in the heat of a quarrel	5.46	86%
3. Pretending to have a headache in order to avoid a social obligation	5.54	72%
4. Driving through a stop sign without coming to a complete halt	5.96	74%
Moderate Statistical Norm Deviation		
1. Making fun of a handicapped person	4.13	90%
2. Taking a student's research paper and publishing it under one's own name	3.59	98%
3. Secretly dating a friend's girlfriend	3.86	84%
4. Intentionally keeping books one has borrowed from the library	4.06	90%
High Statistical Norm Deviation		
1. Planting a high-powered explosive device in a public building	1.90	98%
2. Letting someone drown without making any attempt to help him	1.72	100%
3. Pretending to be crippled to avoid a long wait in line	2.10	86%
4. Pulling up and destroying the vegetables in a neighbor's garden	2.34	90%

	M Rating	Positive Label

Positive Valence

No Statistical Norm Deviation

1. Taking flowers to a friend who is in the hospital ill   5.66   90%
2. Letting one's next door neighbor borrow one's dining room chairs for a dinner party   5.98   90%
3. Congratulating a colleague on being appointed to a post one wished for oneself   5.61   88%
4. Giving a neighbor vegetables from one's garden   5.52   91%

Moderate Statistical Norm Deviation

1. Donating a kidney to a person who would die without a transplant   3.80   90%
2. Giving a friend a valued possession he has admired   4.10   86%
3. Going to the aid of a stranger who is being attacked   3.56   90%
4. Raising money for the defense of one unjustly accused of murder   4.02   86%

High Statistical Norm Deviation

1. Secretly contributing a large part of one's savings to establish a scholarship fund for needy students   1.84   90%
2. Donating 15 acres of land for the building of an orphanage   1.74   91%
3. Giving up one's Christmas day to have some elderly people from a nursing home over for dinner   2.35   82%
4. Working as a chauffeur at half-salary for a handicapped person living on a fixed income   2.04   78%

APPENDIX C

STIMULUS BOOKLET

Long-Term Ipsative Norm Deviation-Order 1[a]

1. Benton contributed half of his paycheck this month to the United Way. In the past he had always behaved this way.

2. Edward took a small item from the dime store without paying for it. In the past he had never behaved this way.

3. At a party Howard put LSD in someone's drink. For the past six months he had been behaving this way.

4. Alan continued to guard the belongings of a stranger long after the time at which the stranger had promised to return. In the past Alan had never behaved this way.

5. Walter gave up his seat on a crowded bus to a handicapped person. For the past six months he had been behaving this way.

6. Arthur told a friend that his term paper was good when it was really below average. In the past he had always behaved this way.

7. Stan returned a wallet containing $200 that he had found in a cab to its owner. In the past he had never behaved this way.

8. Charles took flowers to a friend who was in the hospital ill. For the past six months he had been behaving this way.

9. Learning of a stranger who would die without a kidney transplant, Tom donated one of his kidneys to the person. For the past six months he had been behaving this way.

10. Henry planted a high powered explosive device in a public building. For the past six months he had been behaving this way.

11. Floyd told a malicious, harmful lie about an acquaintance. In the past he had always behaved this way.

12. Sam let his next door neighbor borrow his dining room chairs so that he could have a dinner party. For the past six months he had been behaving this way.

---

[a]Items 1-6, 7, 11, 14, 18, 21, 25, 29, 32, 36, and 39 are control items.

116

13. George made fun of a handicapped person he saw on the street. For the past six months he had been behaving this way.

14. Lew complimented a friend on a handsome pair of shoes. In the past he had never behaved this way.

15. Fred secretly contributed a large part of his savings to establish a scholarship fund for needy students. For the past six months he had been behaving this way.

16. Jerry repeated some uncomplimentary gossip he had heard about a colleague. For the past six months he had been behaving this way.

17. At the lake Dwight let someone drown without making any attempt to help him. For the past six months he had been behaving this way.

18. Stuart refused to hang up the party line phone after being informed that there was an emergency. In the past he had always behaved this way.

19. Martin gave up one of his valuable possessions to a friend who had admired it. For the past six months he had been behaving this way.

20. Pete donated 15 acres of land for the building of an orphanage. For the past six months he had been behaving this way.

21. Max saw someone on the street who appeared to be ill and stopped to give aid. In the past he had never behaved this way.

22. In the heat of a quarrel Bert intentionally said something to hurt a friend. For the past six months he had been behaving this way.

23. Steve took a student's research paper and published it under his own name. For the past six months he had been behaving this way.

24. Seeing a scuffle taking place, Jim went to the aid of a stranger who was being attacked. For the past six months he had been behaving this way.

25. Carl parked in a courtesy parking lot and then shopped elsewhere. In the past he had always behaved this way.

26. In order to avoid a long wait in line, Paul pretended to be crippled. For the past six months he had been behaving this way.

27. Frank feigned having a headache to avoid a social obligation. For the past six months he had been behaving this way.

28. Mike raised money for the defense of someone unjustly accused of murder. For the past six months he had been behaving this way.

29. Dan gave a slight acquaintance a lift home. In the past he had never behaved this way.

30. Doug pulled up and destroyed all the vegetable plants in a neighbor's garden. For the past six months he had been behaving this way.

31. Ted dated his friend's girlfriend behind his back. For the past six months he had been behaving this way.

32. Simon stole some coins from a muscular dystrophy display in a store. In the past he had always behaved this way.

33. Bob drove through a stop sign without coming to a complete halt. For the past six months he had been behaving this way.

34. Andy gave up his Christmas day to have some elderly people from a nursing home over for dinner. For the past six months he had been behaving this way.

35. Dave congratulated a colleague on being appointed to a position that Dave himself wanted. For the past six months he had been behaving this way.

36. Roger treated one of his friends to lunch. In the past he had never behaved this way.

37. James purposely kept some books he had borrowed from the library. For the past six months he had been behaving this way.

38. Jack gave a neighbor some vegetables he had grown. For the past six months he had been behaving this way.

39. Alfred created a scene in a restaurant when he didn't immediately receive his glass of water. In the past he had always behaved this way.

40. Tim worked as a chauffeur at half salary for a handicapped person living on a fixed income. For the past six months he had been behaving this way.

APPENDIX D

INSTRUCTIONS FOR EXPERIMENTAL TASK

Please read these instructions <u>very carefully</u> before beginning
this task. The present study is concerned with your perception of
other people. The study consists of <u>two parts</u> for which you have been
given three separate booklets: a stimulus booklet, a response booklet,
and a postexperimental questionnaire. For part one of the study, which
will now be explained, you need only the stimulus and response booklets.
Please keep the postexperimental questionnaire lying face down and
don't refer to it during this phase of the study. Only after you have
completed and turned in the response booklet should you begin this
questionnaire.

As previously stated, for the first part of the study you will
need both the stimulus and response booklets. The stimulus booklet
contains statements describing certain personal events engaged in by a
central character (the actor) who is referred to by name in the
description. Each event description also contains information relevant
to the event that occurred. Your task is to answer four questions about
each of the events. Your answers are to be recorded by placing a check
mark in the appropriate space in the response booklet, making sure that
your answers in the response booklet are aligned with the number of the
item in the stimulus booklet. That is, the description of personal
event number l in the stimulus booklet should be responded to on the
response scales (a, b, c, d) numbered l in the response booklet, 2
should match 2 and so on.

The four questions that you will be answering for each of the events
will now be explained. Please be sure that you understand these
definitions before beginning work. It is very important that you know
the meaning of the questions and how to use the response scales on which
your answers will be recorded.

Question <u>a</u>. This question asks you how important you think the
<u>personal characteristics</u> of the actor were in causing his behavior. By
personal characteristics it is meant the actor's <u>personality</u>, <u>traits</u>,
<u>character</u>, <u>attitudes</u>, <u>style</u>, etc. How important were these factors in
causing him to behave the way he did? The scale on which you are to
record your response ranges from Extremely Important at one end to
Extremely Unimportant at the other. Place your check in the space that
you think best describes the importance of the actor's personal
characteristics in causing his behavior.

Question <u>b</u>. The second question asks you to indicate the degree
of importance of the <u>characteristics of the situation</u> in causing the
actor's behavior. By characteristics of the situation it is meant

any factor incidental to the actor, such as something about the other person, the circumstances, the situation, etc. How important do you think these factors were in causing his behavior? As in question a, the scale on which you are to mark your answer ranges from Extremely Important to Extremely Unimportant. If you believe some characteristic of the situation was an important cause of the actor's behavior, your response would be on this side of the scale. On the other hand, if you believe this characteristic to be relatively unimportant, you would mark one of the spaces at the Extremely Unimportant end of the scale.

Question c. This concerns your perception of the actor's state of mental health, that is, his emotional or psychological health. The scale ranges from Superior Mental Health through Normal Personality to Mental Illness with five spaces representing various degrees of each of the headings. On this scale Superior Mental Health means that the actor has achieved a higher level of psychological health than most other people. Normal Personality means that the actor's level of mental health approximates that of most other people. Mental Illness means that the actor suffers from some emotional or mental disorder. The exact space you mark your response on depends onthe degree to which you believe the actor possesses superior mental health, a normal personality, or mental illness. For example, if you believe the actor is mentally ill, the space you check under the heading Mental Illness would be determined by whehter you believe he is closer to Severe Mental Illness or Normal Personality. Be sure that you mark only one position on this scale.

Question d. The final question asks you to indicate the confidence you have that your rating of the actor's state of mental health is close to the person's actual state of mental health. Do you feel "Extremely Confident," "Not at All Confident," or somewhere in between about the accuracy of your rating? Check the position on the scale that best describes the degree of confidence you have in your rating.

When completing these scales in the response booklet, if you need reminding about the meaning of the scales, please refer back to these descriptions.

Before you begin answering the questions about each of the personal events, be sure to read the description of the event very carefully. Then in the space provided in the response booklet beside the number of the item, please write in the name of the actor who is engaging in the behavior. For example, if you are responding to personal event number 1 in the stimulus booklet, write in the name of the actor engaging in the behavior in the space next to number 1 in the response booklet. This will help you to keep your responses even with the stimulus items (1 with 1, 2 with 2, on through 40).

Also please be sure to fill in your name and the other information requested on the first page of the response booklet. PLEASE DO NOT MARK THE STIMULUS BOOKLET.

When you have completed the response booklet and checked to be sure that all the items have been answered, turn it in to the Experimenter but retain the stimulus booklet. Next turn over the postexperimental questionnaire, read the instructions, and, if there are no questions, begin work on it.

THANK YOU FOR YOUR VALUABLE HELP IN THIS STUDY. IT IS ESSENTIAL

FOR A RESEARCH PROJECT NOW IN PROGRESS AND IS GREATLY APPRECIATED.

APPENDIX E

POSTEXPERIMENTAL QUESTIONNAIRE INSTRUCTIONS

Please read these instructions carefully before beginning work. The purpose of this final phase of the study is to determine how you perceived the information about each of the personal events in the stimulus booklet. To analyze and interpret the results of the study, it is essential that such information be collected.

To complete this part of the study you need to reread each of the events in the stimulus booklet and respond to two questions asked about them inthe booklet attached to this instruction page. Item 1 in this booklet (parts a and b) refers to item 1 in the stimulus booklet, Item 2 to 2, etc. Before you record your responses please write in the space provided the name of the actor, as you did inthe response booklet. The two questions you will be asked about the events are as follows.

Question a. This question asks you to estimate the frequency of occurrence in the general population of the behavior described in the event. The scale on which you are to record your response ranges from Extremely Common to Extremely Uncommon. If you believe that a fairly large percentage of people engage in the behavior, you should place a check mark at the "Extremely Common" end of the scale. If, on the other hand, you believe the behavior to be infrequent or rare, you would use the opposite end of the scale.

Question b. This question asks you to indicate how long the actor himself has been engaging in the behavior. Was it the first instance of the behavior for the actor, had he been behaving this way for six months, or had he always behaved this way? Place your check beside the statement that best describes the period of time over which the actor's behavior extended.

After you have finished recording your responses on this question- naire, please check to see if you have completed all of the items and have put your name on the first page of the questionnaire. Then hand in both the stimulus booklet and the questionnaire.

Thank you for your participation in this research. If you are interested in the results, the investigator will be glad to give them to you next quarter.

BIBLIOGRAPHY

Abelson, R. P., & Kanouse, D. E. Subjective acceptance of verbal generalizations. In S. E. Feldman (Ed.), Cognitive consistency. New York: Academic Press, 1966.

Ajzen, I. E. Attribution of dispositions to the actor: Effects of perceived decision freedom and behavioral utilities. Journal of Personality and Social Psychology, 1971, 18, 144-156.

Anderson, N. H. Averaging versus adding as a stimulus-combination rule in impression formation. Journal of Personality and Social Psychology, 1965, 2, 1-9.

Calhoun, L. G., Pierce, J. R., Walters, S. H., & Dawes, A. S. Determinants of social rejection for help seeking: Locus of causal attribution, help source, and the "mental illness" label. Journal of Consulting and Clinical Psychology, 1974, 42, 618.

Crumpton, E. F., Weinstein, A. D., Acker, C. W., & Annis, A. P. How patients and normals see the mental patient. Journal of Clinical Psychology, 1967, 23, 46-49.

Cumming, E. E., & Cumming, J. C. Closed ranks. Cambridge: Harvard University Press, 1957.

Darley, J. M., & Latane, B. E. Bystander intervention in emergencies: Diffusion of responsibility. Journal of Personality and Social Psychology, 1968, 8, 377-383.

Dohrenwend, B. P., & Chin-Shong, E. E. Social status and attitudes toward psychological disorder: The problem of tolerance of deviance. American Sociological Review, 1967, 32, 417-433.

Feldman, N. S., Higgins, E. T., Karlovac, M. N., & Ruble, D. N. Use of consensus information in causal attributions as a function of temporal presentation and availability of direct information. Journal of Personality and Social Psychology, 1976, 34, 694-698.

Feldman, S. E. Motivational aspects of attitudinal elements and their place in the cognitive interaction. In S. F. Feldman (Ed.), Cognitive consistency. New York: Academic Press, 1966.

Gergen, K. J. Personal consistency and the presentation of self. In C. J. Gordon and K. J. Gergen (Eds.), The self in social interaction. New York: Wiley, 1968.

Gergen, K. J., & Jones, E. E. Mental illness, predictability, and the affective consequences as stimulus factors in person perception. Journal of Abnormal and Social Psychology, 1963, 67, 95-104.

Hansen, R. D., & Donoghue, J. M. The power of consensus: Information derived from one's own and other's behavior. Journal of Personality and Social Psychology, 1977, 35, 294-302.

Hansen, R. D., & Lowe, C. A. Distinctiveness and consensus: The influence of behavioral information on actor's and observer's attributions. Journal of Personality and Social Psychology, 1976, 34, 425-433.

Hartman, F. L. Towards a concept of mental health. British Journal of Medical Psychology, 1960, 33, 243-248.

Hartung, F. E. Crime, law, and society. Detroit: Wayne State University Press, 1965.

Harvey, J. H., Ickes, W. J., & Kidd, R. F. (Eds.), New directions in attribution research (Vol. 1). Hillsdale, New Jersey: Lawrence Erlbaum Associates, 1976.

Heider, F. L. Social perception and phenomenal causality. Psychological Review, 1944, 51, 358-374.

Heider, F. L. The psychology of interpersonal relations. New York: Wiley, 1958.

Imamoglu, E. O. Attribution of intentionality as a function of age, outcome quality, and affect for the actor. European Journal of Social Psychology, 1976, 6, 25-39.

Jones, E. E., Davis, K. E., & Gergen, K. J. Role playing variations and their informational value for person perception. Journal of Abnormal and Social Psychology, 1961, 63, 302-310.

Jones, E. E., & Davis, K. E. From acts to dispositions: The attribution process in person perception. In L. Berkowitz (Ed.), Advances in experimental social psychology (Vol. 2). New York: Academic Press, 1965.

Jones, E. E., Kanouse, D. E., Kelley, H. H., Nisbett, R. E., Valins, S. E., & Weiner, B. F. (Eds.), Attribution: Perceiving the causes of behavior. Morristown, New Jersey: General Learning Press, 1972.

Jones, E. E., & McGillis, D. L. Correspondent inferences and the attribution cube: A comparative reappraisal. In J. H. Harvey, W. J. Ickes, & R. F. Kidd (Eds.), New directions in attribution research (Vol. 1). Hillsdale, New Jersey: Lawrence Erlbaum Associates, 1976.

Jones, E. E., & Nisbett, R. E. The actor and the observer: Divergent perceptions of the causes of behavior. In E. E. Jones, D. E. Kanouse, H. H. Kelley, R. E. Nisbett, S. E. Valins, and B. F. Weiner (Eds.), Attribution: Perceiving the causes of behavior. Morristown, New Jersey: General Learning Press, 1972.

Kahneman, D. E., & Tversky, A. J. Belief in the law of small numbers. Psychological Bulletin, 1971, 76, 105-110.

Kanouse, D. E., & Hanson, L. R., Jr. Negativity in evaluations. In E. E. Jones, D. E. Kanouse, H. H. Kelley, R. E. Nisbett, S. E. Valins, and B. F. Weiner (Eds.), Attribution: Perceiving the causes of behavior. Morristown, New Jersey: General Learning Press, 1972.

Kelley, H. H. Attribution theory in social psychology. In D. G. Levine (Ed.), Nebraska symposium on motivation (Vol. 15). Lincoln: University of Nebraska Press, 1967.

Kelley, H. H. Attribution in social interaction. In E. E. Jones, D. E. Kanouse, H. H. Kelley, R. E. Nisbett, S. E. Valins, and B. F. Weiner (Eds.), Attribution: Perceiving the causes of behavior. Morristown, New Jersey: General Learning Press, 1972.

Kirk, R. E. Experimental design: Procedures for the behavioral sciences. Belmont, California: Brooks/Cole, 1968.

Lehmann, S. J., Joy, V. L., Kriesman, D. A., & Simmens, S. D. Responses to viewing symptomatic behaviors and labeling of prior mental illness. Journal of Community Psychology, 1976, 4, 327-334.

Lemkau, P. V., & Crocetti, G. M. An urban population's opinion and knowledge about mental illness. American Journal of Psychiatry, 1962, 118, 692-700.

Lowe, C. A., & McConnell, H. K. Intent, dispositional attribution, and correspondent inferences. Paper presented at the 85th Annual Convention of the American Psychological Association, San Francisco, California, 1977.

Lowe, C. A., & Medway, F. J. Effects of valence, severity, and relevance on responsibility and dispositional attribution. Journal of Personality, 1976, 44, 518-538.

McArthur, L. A. The how and what of why: Some determinants and consequences of causal attribution. Journal of Personality and Social Psychology, 1972, 22, 171-193.

McArthur, L. A. The lesser influence of consensus than distinctiveness information on causal attributions: A test of the person-thing hypothesis. Journal of Personality and Social Psychology, 1976, 33, 733-742.

Maisel, A. Q. When would you consult a Psychiatrist? Colliers', 1951, May 12, 13-15, 72-75.

Messick, D. M., & Reeder, G. H. Perceived motivation, role variations, and the attribution of personal characteristics. Journal of Experimental Social Psychology, 1972, 8, 482-491.

Milgram, S. I. Behavioral study of obedience. Journal of Abnormal and Social Psychology, 1963, 67, 371-378.

Miller, A. G., Gillen, B. C., Schenker, C. L., & Radlove, S. T. Perceptions of obedience to authority. Proceedings of the 81st Annual Convention of the American Psychological Association, 1973, 8, 127-128.

Mischel, W. E. Personality and assessment. New York: Wiley, 1968.

Nisbett, R. E., & Borgida, E. L. Attribution and the psychology of prediction. Journal of Personality and Social Psychology, 1975, 32, 932-943.

Nisbett, R. E., & Schachter, S. T. Cognitive manipulation of pain. Journal of Experimental Social Psychology, 1966, 2, 227-236.

Nunnally, J. P. Popular conceptions of mental health. New York: Holt, Rinehart, and Winston, 1961.

Orvis, B. R., Cunningham, J. D., & Kelley, H. H. A closer examination of causal inference: The roles of consensus, distinctiveness, and consistency information. Journal of Personality and Social Psychology, 1975, 32, 605-616.

Phillips, D. L. Rejection of the mentally ill: The influence of behavior and sex. American Sociological Review, 1964, 29, 679-686.

Ruble, D. N., & Feldman, N. S. Order of consensus, distinctiveness, and consistency information and causal attributions. Journal of Personality and Social Psychology, 1976, 34, 930-937.

Sarbin, T. R. On the futility of the proposition that sane people can be labelled "mentally ill." Journal of Consulting Psychology, 1967, 31, 447-453.

Sarbin, T. R. The scientific status of the mental illness metaphor. In S. C. Plog and R. B. Edgerton (Eds.), Changing perspectives in mental health. New York: Holt, Rinehart, and Winston, 1969.

Sarbin, T. R., & Mancuso, J. C. Failure of a moral enterprise: Attitudes of the public toward mental illness. Journal of Consulting and Clinical Psychology, 1970, 35, 159-173.

Shaw, M. E. Attribution of responsibility by adolescents in two cultures. Adolescence, 1968, 3, 23-32.

Shaw, M. E., Floyd, F. A., & Gwin, N. E. Perceived locus of motivation as a determinant of attribution of responsibility. Representative Research in Social Psychology, 1971, 2, 120-129.

Shaw, M. E., & Sulzer, J. L. An empirical test of Heider's levels in attribution of responsibility. Journal of Abnormal and Social Psychology, 1964, 69, 39-46.

Star, S. A. The public's ideas about mental illness. National Opinion Research Center. University of Chicago, 1955.

Storms, M. D. Videotape and the attribution process: Reversing actors' and observers' points of view. Journal of Personality and Social Psychology, 1973, 27, 165-175.

Szasz, T. S. The myth of mental illness. American Psychologist, 1960, 15, 113-118.

Taylor, S. E., & Koivumaki, J. H. The perception of self and others: Acquaintanceship, affect, and actor-observer differences. Journal of Personality and Social Psychology, 1976, 33, 403-408.

Thibaut, J. W., & Riecken, H. W. Some determinants and consequences of the perception of social causality. Journal of Personality, 1955, 24, 113-144.

Underwood, B. W., & Moore, B. S. Determinants of mental illness attributions. Paper presented at the 85th Annual Convention of the American Psychological Association, San Francisco, California, 1977.

Wells, G. L., & Harvey, J. H. Do people use consensus information in making causal attributions? Journal of Personality and Social Psychology, 1977, 35, 279-293.

Yamamoto, K. S., & Dizney, H. F. Rejection of the mentally ill: A study of attitudes of student teachers. Journal of Counseling Psychology, 1967, 14, 264-268.

Yarrow, R. G., Schwartz, F. V., Murphy, T. E., & Deasy, B. A. Recognition of problem behavior. American Journal of Sociology, 1955, 21, 216-224.

BIOGRAPHICAL SKETCH

Bobbie L. Irving was born June 5, 1945, in Norfolk, Virginia. She attended elementary and high schools in Franklin, Virginia, graduating in 1963. That year she enrolled at the University of Miami in Miami, Florida, and majored in psychology and English literature. Graduating in 1968, she worked for a year as a medical technician and research assistant. In 1969 she became a graduate student in psychology at the University of Florida. She received her MA degree in 1973.

I certify that I have read this study and that in my opinion it conforms to acceptable standards of scholarly presentation and is fully adequate, in scope and quality, as a dissertation for the degree of Doctor of Philosophy.

James C. Dixon, Chairman
Professor of Psychology

I certify that I have read this study and that in my opinion it conforms to acceptable standards of scholarly presentation and is fully adequate, in scope and quality, as a dissertation for the degree of Doctor of Philosophy.

Franz R. Epting
Associate Professor of Psychology

I certify that I have read this study and that in my opinion it conforms to acceptable standards of scholarly presentation and is fully adequate, in scope and quality, as a dissertation for the degree of Doctor of Philosophy.

Mary H. McCaulley
Assistant Professor of Clinical Psychology

I certify that I have read this study and that in my opinion it conforms to acceptable standards of scholarly presentation and is fully adequate, in scope and quality, as a dissertation for the degree of Doctor of Philosophy.

Marvin E. Shaw
Professor of Psychology

I certify that I have read this study and that in my opinion it conforms to acceptable standards of scholarly presentation and is fully adequate, in scope and quality, as a dissertation for the degree of Doctor of Philosophy.

Marilyn B. Zweig

Marilyn B. Zweig
Associate Professor of Philosophy

This dissertation was submitted to the Graduate Faculty of the Department of Psychology in the College of Arts and Sciences and to the Graduate Council, and was accepted as partial fulfillment of the requirements for the degree of Doctor of Philosophy.

March, 1978

Dean, Graduate School